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PROBLEMS OF UNIVERSITY EDUCATION IN INDIA

BY

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Presidential Address at the University Section of the 12th All India Educational Conference Gwalior.

Meeting on an occasion like this, in the University section of a general Educational Conference in India, it must be some satisfaction that problems of higher education are now receiving special attention in this country and we seem to be passing, at least through the early stages, of new questioning and reconstruction. Since the years immediately following the publication of the Calcutta University Commission's report nearly two decades ago, we do not seem to have lighted upon a more active period than the present, in matters of university organisation. It was the privilege of some of us, as members of the Punjab University Enquiry Committee in 1932-1933 to raise an alarm regarding the present trend of Indian education, the waste of several stages and the futility of educational effort in the case of thousands of our young men. The menace of unemployment had already reared its ugly head and we ventured to suggest remedies of an entire reorganisation of the educational system, particularly in its earlier stages. We recommended self-sufficient stages of instruction and the periodical diversion of material into other suitable channels to relieve unemployment, if not immediately, at least in the near future, and to make higher education more effective, adjusting it to the changing conditions of to-day.

The advice was apparently worth consideration and we have to-day in many provinces in India, ideas of educational reform in the air in two directions—in a reconstruction in the lower stages which may lead to better university education and also a

Upanishads proclaimed in constant and no uncertain voice that Ignorance was Sin. Let us not go back on thousands of years of human history and progress, and reverse the classic words of Virgil that "mind moves matter."

If this is tragic, another assumption is equally comic. Vice-Chancellors and heads of colleges, according to some of our critics, should obviously employ themselves in a continuous study of the jobs available, and after collecting and digesting the necessary statistics, admit only such a number of students as can find employment immediately after leaving college. Let us not descend to this level, even when recognising the existence of unemployment and trying to solve the problem. Let us not be ashamed of saying that intellectual illumination, with all the elevating consequences it implies, is the end of all true education and even if we are merely politicians, let us realise, as has often been said that the uneducated unemployed—especially the half-educated—are a greater danger to the state than an educated crowd in similar circumstances.

Proceeding to a brief examination of a few of the problems of higher education in India, mention may first be made of the problem of educational 'waste' which has been brought to notice in recent years, as a serious defect handicapping all effort. It is curious it should not have met with any adequate treatment at the hands of University authorities, though claiming a little more attention in the lower stages. It is particularly disastrous in our universities, where we find the sad spectacle of about a fourth or fifth of the students entering the portals emerging at the other end, completing their education and acquiring higher academic qualifications of any kind. On a rough calculation, it may be said that of about fifty thousand (50,000) students joining our colleges in a year, only about ten thousand (10,000) leave them as graduates after a period of four or more years. The rest fall off the bridge during journey, as in Addison's Vision of Mirza, unable to profit by the instruction and having only caused considerable expenditure of money and effort to the Government, the parent and the private benefactor, wasting years of their lives, bringing down standards of instruction, blocking classes and draining the resources of a people who are by no means over-blessed with the material resources of the world. Attempts at raising standards, or weeding out the unfit unfortunately only rouse suspicion in this country and sinister motives are attributed to the sponsors of such proposals. We may believe in Lord Macaulay's theory of the possibility of knowledge filtering to the masses from the upper strata of the intellectual people. We may

even go so far as the German ballad which asks with gusto, "who should pupil be?" and answers the question with the words, "why, every one!" even with reference to universities, but cannot we summon enough statesmanship and driving power in our universities to put an end to this tragic waste? There can be nothing more humane to the younger generation of this land than the diversion of those who will only swell the futile crowd if admitted into the universities, into more profitable channels of educational progress.

It is no use arguing that we have a population of more than three hundred and fifty millions in this country and the number of university students is, therefore, not large in comparison with other lands. The more relevant fact is to consider it in proportion to the literate population, though the main complaint is not so much about largeness of numbers as about the waste of effort. Let us not forget that all the time there has been great need for raising our standards and realising the ambition of making the products of our universities second to none in the world.

There has been considerable stir all over the civilised world in the last few months, as a result of the enquiry into the value and the efficiency of examinations conducted by Sir Michael Sadler and his colleagues, under the auspices of the Carnegie Foundation. The startling variations in marking and the failure in examinations in many cases, to assess and sift real intellectual worth and ability, have caused heart-searchings among experts, but it is surprising that the Indian universities have not shown any reaction to these findings. The pandits of the academic world in India seem to continue in their smug satisfaction, unmindful of the revelations which have been made. But the time has really come to take up the matter seriously and find a solution to the anomalies which have been brought to our notice by the report, even making allowance for the exaggeration with which some people have charged the document. A humble beginning may perhaps be made, in preventing the final written examination, extending over a few hours, from being taken as the sole test for the award of a diploma, or degree, by giving some credit to work done in the class during the years of preparation and raise the proportion of marks gradually, perhaps up to 50 per cent of the total, as universities gain more and more confidence in their teachers. Memory is undoubtedly one of the essential intellectual qualities to be tested by examinations; but it may be asked whether we are paying sufficient attention to other qualities as well, in the setting of our question papers.

The large number of candidates in Indian Universities, particularly at the High School and the Intermediate stages, which are still managed by some of our universities, is another complication, requiring special diagnosis and treatment at the hands of our experts, to reduce to a minimum the variation of standards inevitable in such mass treatment. What is the contribution of our universities to the solution of these problems? The answer is a regrettable negative. It would be uncharitable to suggest that any loss of faith in examinations, as conducted at present, will mean serious financial loss to several university professors and therefore there is not much anxiety to reform, but it is difficult to escape such a suspicion. Goethe complained that men like cattle love to lie in the dirty straw of their old habits, but should not university men at least rise to higher ideals?

The education of every university student costs to the university concerned anything about rupees two hundred to one thousand a year. It is certainly worth considering whether large sums of money cannot be released for making university education more efficient, by tackling this problem which has evil consequences in many spheres, even other than the economic. It would be mere sentimentality to shed tears over any reduction of the total number of university students in this country, even when we improve the quality, prevent avoidable waste and provide for those who are not suitable for admission into universities more attractive facilities than a frustrated university course which has made them perhaps less fit for at least certain types of employment, as the result of the longer education.

An allied problem, often misunderstood in university circles in India, is the possible increase of efficiency by co-ordination of effort and the utilisation of the extra funds which may thus be made available. The problem is particularly acute in the United Provinces, where as many as five universities function in an area which was catered for by a single high-class university only about two decades back, the University of Agra having, in addition, several post-graduate centres which are attempts at miniature universities without being independent examining authorities. It is difficult to expect people to agree to schemes of coordination which may result in loss of employment to themselves, but the problem should not be insurmountable if the university authorities collaborated in serious consideration of the reform and effected it, as gradually as possible, with the least inconvenience to the existing incumbents in office. From what has happened to efforts in this direction in the past, it is however difficult to find any hope of early progress in the matter.

To any one who has travelled in the United States of America, nothing is borne in upon the mind so constantly as the lavish resources available for university education by large grants by the state, private endowments on a magnificent scale and contributions in the shape of fees from the students, but India is not America and there is, therefore, great need for drastic efforts at the finding of more money for higher education. We seem to be almost at the end of our tether, as far as financial assistance from the government is concerned, in view of the strenuous concentration necessary for the impending programmes of elementary education, without which the new constitution has not even a sporting chance of success.

Even in such a hurried review of the problems of higher education in India to-day, room must be found for at least a bare statement of two or three problems of vital interest to the wellbeing of our universities. The introduction of a democratic element into the constitution of our universities, with the laudable aim of rousing popular interest in our centres of learning has sometimes raised inconvenient questions of a control not always guided by a due appreciation of true educational ends or of high academic standards. The creation of suitable traditions in course of time must be awaited, for the right spirit in our laymen, to look upon the helping of education, more as an opportunity for service than of the exercise of control.

More than any danger to academic life or standards, the present object dependence of our universities on the legislatures is a source of possible trouble for the future, having already resulted in friction at least in some parts of India. It is conceivable that in times of political excitement, or with certain parties in power which may not be very friendly to higher education, universities may find it difficult to get the necessary funds voted in the annual legislative budget and their very existence may thus be seriously threatened. The gradual creation of large permanent endowments by payments by the state, spread over a certain number of years, supplemented by vigorous efforts at getting private benefactions, should enable universities to enjoy the economic independence so essential for their life. Here again, there is not much evidence of effort, not even a clear perception of the need.

The problem is not less complicated, even in relation to the academic members of the universities themselves, who are apt to fight about petty university politics involving elections to various bodies, unmindful of the great ends of true learning.

Here again, let us hope that it will not be long before healthy traditions are created and the serenity of our groves of learning will not be disturbed by undesirable influences.

A recent writer in the *Nineteenth Century* has raised a question relating to the organisation of university teaching about which we may be warned in time. It is a matter of gratification for universities in India that research is being increasingly recognised as an integral part of university education and it is felt that universities exist also for the education of the professors themselves and the advancement of the bounds of knowledge; but let us not commit the mistake of neglecting the ordinary work of teaching under the excuse of being engaged in research. It is often a temptation to avoid having to wear ourselves out in the service of the young men entrusted to our care, absorbed in the library or in the laboratory, especially as the published results of research are more palpable and easier of obtaining recognition. The bulk of the students of the universities, we must remember, are of the undergraduate standard and a university will not be fulfilling one of its most important functions, if it did not inspire them to enthusiasm for learning and principles of noble conduct. Let us guard ourselves against the serious danger, already present in some Western universities, of the professor of mere research who sometimes seems to get gradually disqualified for his work as a teacher with a living voice by long and concentrated research work. It may seem somewhat synical, but a writer has said with some truth, that research very often means nothing more than knowing more and more about less and less, the scholar losing all human interest in the world and only burrowing deeper and deeper like a blind mole into the foundations of one little branch of its own subject. As advised by the famous report of Lord Haldane's London University Commission, it is desirable that the undergraduate students should be in touch with at least some of the highest intellectual workers of the university, but it is already being violated at some universities in India, where the younger students only catch a passing glimpse of a drooping bespectacled professor said to be a researcher who thinks it beneath his dignity to take any notice of them. He does not condescend to teach them, nor would he be particularly successful even if he tried, after some years of neglect. There is a deterioration in the contact between the generality of students and the most gifted men in our universities. Even at the risk of seeming an obscurantist it seems necessary to utter this warning.

Turning almost to an entirely unconnected aspect of university education, let us not also be beguiled by those specious advocates who would recommend the restriction of opportunities of higher education to women on the ground that education for the home is all that they deserve. Despite what Mussolini, and Hitler to a greater extent, have recently been attempting to do in this direction, it is good to recognise that the stress of economic life to-day seems to justify the ideal of economic independence to women also, not to speak of the injustice in the denial of equal opportunities for higher education to the two sexes. We have travelled far beyond the Victorian tradition that a woman had better know only all about the house, while man may venture to know about a thousand things. It is doubtful if everything has been done in our universities to encourage this new angle of vision and to facilitate expansion in this direction. The onward movement in our universities in the next few years must obviously lay special stress on this phase of development.

These by no means exhaust the problems with which we are confronted in the university-world of India. There are various other issues, large and small, which cannot all for obvious reasons be discussed in this short address. The foundations of our traditional beliefs are being seriously undermined by the onslaught of modern science, but are we doing anything to replace them with a new faith more consonant with modern conditions? Have we succeeded in keeping ourselves sufficiently in touch with the masses, without creating a new class of intellectual snobs who are in no way rooted to their own national life and civilisation? Have we taken note of some of the latest developments in scientific and technological education and been able to introduce them into India? Has the Indianisation of the curricula of studies progressed with sufficient strength? Are we nearer the ideal of imparting instruction through the mother tongue in the universities of our country? Here are many fascinating questions suggesting fruitful lines of enquiry and cogitation.

It will however perhaps be enough to conclude this address to-day, with the hope that our universities may take at no distant date their due place among the great educational centres of the world and revive, once more, the ancient glories of Taxila and Nalanda which have made India's name imperishable in the annals of man's progress on earth. The former secretary of the Indian Inter-University Board, Mr. P. Seshadri, who is now at the head of the Government College, Ajmer, was chairman of the University Section of the All-India Educational Conference

held recently at Gwalior. In his presidential address he criticized many aspects of university education and (as was to be expected from his share in the report of the Punjab University Inquiry Committee in 1932-33) he ranged himself on the side of advocates of the entire reorganization of the educational system, particularly in its earlier stages. He thinks, however, that there is nothing of which educationists should be ashamed in their work of the last 100 years; on the contrary they have every reason to be thankful for the decisions reached a century ago. Almost all impulses to national progress in India during the century, including the present demand for reconstruction, have come, he says, from those who have received the benefits of English education.

In no country, he argued, can the existence of unemployment be held to condemn the educational system. It may be observed, however, that there is reasonable presumption in that direction when, as in India, the unemployment is not industrial, but among the classes which have continued their education at high schools and colleges to early manhood. He asked his hearers not to forget that the main purpose of education never was, and never would be, merely to enable people to earn salaries, however important might be the contribution of economic competence to the happiness of human life. He deprecated the idea that heads of colleges should employ themselves in a continuous study of the openings available, with a view to admitting only such a number of students as could find employment immediately after leaving college. Intellectual illumination, he said, was the end of all true education. At the same time he calculates that of about 50,000 students who join the university colleges in a year, only about 10,000 leave them as graduates.

One of Mr. Seshadri's most impressive criticisms was that little or nothing had been done in the light of the labours of Sir Philip Hartog's committee on examinations, to remedy glaring defects in Indian tests. The problem, he said, was particularly acute in the United Provinces, where there were now five universities, as compared with one some 20 years ago, and where the University of Agra had several post-graduate centres "attempts at miniature universities, without being independent examining authorities." He suggested that the five universities should take into serious consideration the question of coordination, and effect reform by stages with the design of reducing loss and inconvenience to existing holders of appointments.

Contrasting the Indian position with that of the United States, where there has been such lavish provision of all kinds for university teaching, Mr. Seshadri spoke of the urgent need both for making the best of existing resources and of finding more money, particularly in the form of private endowments. He feels there can be little more financial assistance from Government in view of the necessity to concentrate on overcoming mass illiteracy.

HUMANIZED SCIENCE

BY

G. V. BRUCE

It was not until the primitive modes of intuitive thought were supplanted by the dynamic attitude of questioning and seeking causal relationships that the age of science was born. There can be no date set for this event, but it seems like a comparatively recent occurrence. For if we plot the curve of human progress down through the long and tedious path of history, very little seems to emerge to break the monotony of its even course until it approaches the turn of the present century. It then swings abruptly and seems to climb almost to a vertical ascent. This is so recent, and the rate of change is so violent, and the social structure that is reared upon it is so complex and threatening, that some would seek a respite from it and return to the simpler days.

But rapid change is inevitable. The mind is now in possession of this tool for seeking truth and no force can prohibit its use. As one follows the proceedings of the recent meeting of the American Association for the Advancement of Science he is impressed that the wildest fancies may not exaggerate the realities that science will bring forth in the not too distant future. The question cannot be, Shall we abandon it or shall we continue it? The real question is, Shall we direct it into a socially creative force or shall we permit it to become a destructive one? Shall we make it our servant, or permit it to be our master?

Education must hold the answer to these questions. Change in a democracy can be synonymous with progress only in so far as the nature and causes of the change are understood by all. It is at this point that science education should make its contribution. But it seems to have failed. It has been said, with much truth, that in spite of all the science education in the world by the universities, the colleges and the high schools, we are just as unscientific as a people today as in the days of old. Thinking is still dominated by the vestiges of occultism. The people are illiterate as to the economic, social and cultural meaning of this force that has come upon us. They are blind to the fact that we are living in a man-made environment, supposedly for improvement but at the same time one that is

charged with dangerous forces. They are willing to entrust its control to the ignorant or the unscrupulous in whose hands it may become a destructive agency.

This anomalous condition obtains in spite of the fact that the universities have maintained heavily endowed and highly organized departments of science education for more than a century, and the high schools throughout the world have maintained costly science curricula for more than half this time. It seems that it is not, therefore, so much the quantity of science education, but rather the nature and the place of its emphasis, that should command our attention.

The universities and liberal arts colleges, with the selective curricula of the high schools as feeders, have placed the dominant emphasis on the creation of specialists. These specialists have been admirably equipped to delve into restricted areas of the unknown and deliver to a scientifically illiterate and credulous world an everpyramiding body of pure science knowledge toward which the credulous masses seem content to take the role of the guinea-pig. This system of science education has yielded the phenomenal material expansion that marks our present day, and which should be the pride of our generation, but it has failed at the same time to humanize that great body of thought and endeavour which we call science: science as a method of finding truth: science as a power for economic, social and environmental improvement; science as a source of cultural enjoyment and a body of interpretative meanings, and above all an area of worthwhile cultural diversion.

Twenty years ago many of the scientists themselves began to take stock of the social implications of their work. They saw that it was badly used and was beset with inherent dangers to the social and economic welfare. They concluded that the surest way to safeguard the positive values of research was through a popular understanding of its meaning. Such literary scientists as Jeans, Eddington, Compton, Millikan, Pupin, Huxley, and scores of others, have stopped their research labours long enough to give us such titles as, "Science and the New Civilization," "The New Reformation," "Microbe Hunters," "Crucibles," "The Romance of the Machine," and hundreds of other inspirational books in all fields of science for the interest and enjoyment of the lay reader. Scores of others have given their time and talent to the production of literature of both narrative and activity types for the interest and enjoyment of children for all levels from kindergarten to high school. This body of literature testifies to the triumph of the literary scientist

in his endeavour to present the world of science to adults and children with the charm and thrill of fiction and at the same time preserving the dignity and profundity of its truth and accuracy. But our schools are not prepared to use it.

During all this time science education has continued to be the victim of a closed academic cycle. It has been blocked by our typically American single-tracked and vertical system of closely, articulating parts, the university, the high school and the grammar school.

First, the universities and colleges have maintained for the most part only highly departmentalized science curricula for the specific purpose of training skilled specialists to serve the technical fields of industry as well as the field of pure research. This has crowded out of the colleges, science education as a liberal cultural lay interest.

Secondly, the universities and colleges have dictated the high school curriculum as an instrument of selection for potential research material to feed their own departments. Science in the secondary school has been thereby robbed of much of its liberal, cultural, interpretative lay interest. It has consistently carried a reputation for being difficult, a thing to be feared and let alone, so that comparatively few elect it at all.

Then finally, at the elementary level science education is almost totally excluded from the curriculum, with the result that the great mass of our potential citizens are hopelessly denied all opportunity for experience and growth in this area.

Most of the classroom teachers and most of the principals and superintendents are victims of this vicious cycle. The most vivid recollection they have of science and in many cases the only one, is that of some unpleasant, distasteful or discouraging experience back there in their high school or college life; thus we have a self-perpetuating cycle that has long defied all attempts to thrust a wedge into its vicious course.

A small group of faithful and hard-working educators have striven for more than twenty years to reverse this cycle and bring science back to the people as a cultural interpretative pursuit. Their efforts are now slowly being rewarded by a growing interest on the part of administrators and teachers throughout America. We must continue to keep our shoulder to the wheel and set it revolving in just the other direction and project liberal science education from the grammar school through the high school and into the college. The universities and liberal arts colleges will not do it. The high school cannot easily do it. It seems to be the distinct function of the teacher,

charged with dangerous forces. They are willing to entrust its control to the ignorant or the unscrupulous in whose hands it may become a destructive agency.

This anomalous condition obtains in spite of the fact that the universities have maintained heavily endowed and highly organized departments of science education for more than a century, and the high schools throughout the world have maintained costly science curricula for more than half this time. It seems that it is not, therefore, so much the quantity of science education, but rather the nature and the place of its emphasis, that should command our attention.

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colleges and normal schools by the help and cooperation of teachers and principals of the elementary school level to bring this to pass. A little here and a little there will get the cycle moving in the other direction, and once it is started it will rapidly gain momentum.

It is hoped that this cultural, interpretative and diversional type of science started in the grammar school and continued through high school and into college, for those who go, will produce an essential contribution to the social understanding and cultural enrichment of all the people. It is believed that this should help produce a lay public more adequately equipped to cope with the inherent dangers that infest present society and preserve for the people the potential social benefits that should accrue from the never-ending gamut of science research.

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THE PROGRESS AND SPIRIT OF EDUCATION BEFORE THE MIDDLE AGES

BY

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It is rather difficult to trace back exactly the date from which Education of man began. At any rate we are not much concerned with those stages of development that took place prior to the advent of man. All that is possible is to place before the readers that fundamental aspect of Education which deals with 'conscious evolution'. Education from time immemorial has been intimately interwoven with the latest and highest movement in the working out of the machinery of the World. In order therefore to study education one must see how progress based on social and Educational ideals which determine progress have been developed. Such a study would undoubtedly be highly interesting and extremely valuable, as it affords a broad survey, and shows the real place of the teacher in the world movement.

The earliest education was meagre and of a very non-progressive type. It was almost unconscious of its own aim, and did not possess any ideals, political, social or moral.

The only purpose, however, of primitive education was the satisfaction of immediate needs, as for example food, clothing and shelter. For acquiring such practical education no schools were needed, and the only means by which it was accomplished was through the family. The defect of such a system was that it was imitative and fixed, and afforded no chance whatsoever for individual development. A slight relief over the old wooden system was sought by the Egyptians, who shifted the lever of their education from purely practical to priestly and professional. But even the Egyptians were never impressed with the idea of a liberal education. Knowledge was not acquired by them for the purposes of knowledge, but from a purely utilitarian motive. Egyptians, however, were the pioneers in the development of Education. They organised a system of schools, to which children were sent as soon as they passed out of infancy, at five years of age. These elementary schools were not aided by the

state and were run purely on private enterprise. Seekers of higher education had to go to the temples, which furnished training for the scribes. School hours were short, and strict discipline was maintained by resorting to corporal punishment. Reprimands were extensively used by the teachers as a means of corrective. In extreme cases a youth could be punished by confinement to the temple for three months. The treatment of Egyptians towards women, though better, than that of the nations of antiquity, was far from satisfactory. Women were not allowed much freedom, and intellectual training.

With the type of education outlined above, much advancement for Egypt was not possible. It was keenly felt that for the civilization to continue its onward march, a newer system based on better ideals was needed.

No educational contribution towards the onward march to civilization was made by the Babylonians and Assyrians. Their system of Education was much the same as that of the Egyptians, with the only difference that the range of instruction was considerably increased. A wide range of technical subjects such as Engineering, Mathematics, Astronomy, Natural Science, Medicine, Architecture, Art, Literature and History were taught but largely by the method of memorising and imitation.

A step in advance was taken by the Phœicians and Israelites, the Semitic Nations of the Ancient Orient. They were the originators of the phonetic alphabet. They simplified Egyptian method of expressing speech in written form, and reduced the ideographs to an alphabet. The aim of Phœician education was both industrial and commercial. Schools for elementary and higher education were opened in large numbers, and education was popularised by them. Though instructions in Arts and Sciences were well looked after, ethical teaching was in a most degraded condition.

A transitional stage in the development of Education was introduced by the Chinese. Socially the Chinese represent a type by themselves. The head of the family was treated with great reverence, and had absolute control over the family. His wife and children had to obey him implicitly. Not only did Autocracy exist in the family, but also was found to almost the same extent in the State as well. The Emperor had absolute control over the life and death of his subjects. The Chinese were a very conservative set of people. They liked to stick to their old habits and old traditions. They made no attempt whatsoever to change the older order. The examinations were conducted in cells, in

which the examinees were confined during a major portion of the term of examination. In the opinion of F. P. Grane, Ph.D., Professor of the History and Philosophy of Education at the Ohio State University, the examinations were not conducted honestly. Despite a vigorous searching of the candidates beforehand, small editions of sacred books or essays prepared in advance were sometimes smuggled into the examinations in their sleeves and officials were known to be open to bribery.

The method of teaching of the Chinese was equally superficial as their system of examination. It was based on memorising and imitation. The instruction was imparted to individual students, who remembered their lessons by shouting, which was regarded as an indispensable part in the child's education, with the result that the students did not at all understand the meaning of what they were taught. The teachers in charge of Schools were untrained and highly unskilled. Under the Chinese system of Education no facilities were offered to the pupils in such subjects as Mathematics, Geography and Sciences, which are actually so essential for life. Chinese Education on the whole was static and nonprogressive.

Contribution of Aryans to Ancient Education.

Having considered the aims, objects and methods of Chinese Education, let us pause for a while to consider the contribution made by the Aryans. They entered India somewhere about 2000 B.C., and for nearly 800 years they presented their peculiarities to a greater or lesser extent. Socially they did not make much progress. Women were not held by them in proper esteem. They were simply supposed to minister to man, and bear children. The aim of Aryan Education was not the fulfilment of the present life, but the preparation for the life to come. The education was therefore mainly religious, and was imparted merely with the object of carrying out its injunctions. Different types of education were imparted to different castes. The upper castes were afforded opportunities to gain a knowledge of the sacred works, which was denied to the so called Shudras. The Warriors were expected to pay more attention to martial exercises and the Industrial Caste to acquire through apprenticeship the arts necessary for its hereditary occupations. The place of the woman in the Aryan family having already been defined, it is not surprising that she were not allowed to take part in Education. It was considered a reproach to her even to know how to read or write as she might thereby be tempted to neglect her domestic duties.

Method of Education of the Aryans.

As regards the means of Education, elementary subjects and traditions were learned at home, and later in local schools. Higher education was carried on at Brahmanic Colleges, and the highest form of instruction was imparted by means of a collection called the 'Vedas.' These were committed to memory by the pupils. The only method of teaching was a memoriter one. The teachers were always Brahmins, and even the elementary teachers were required to pass through the complete course of higher study. Teachers were treated with the greatest respect. They did not receive any fixed wages or salary for the work done by them. The tuition money however, was paid to the teachers by pupils' parents in the form of presents. Pupils after receiving education were entrusted to teach the younger children. From this ancient system of teaching has sprung up the so called modern monitorial system of Education. In spite of the prevalence of this system, however, most of the people were uneducated, and even the Brahmins had only traditional learning. Hence the progress made on the whole by the Aryans was very little. Real educational advancement of all types was severely marred by the religious barriers imposed on it. The result of this has been that the Aryans even up to the present day have been greatly lacking in ambition, self reliance, and personal responsibility, and have never come to any feeling of solidarity or national unity. They have cultivated the so called passive virtues of patience, gentleness, resignation peaceableness and docility.

Contribution of Persia to Ancient Education.

The Persians originated from the same source as the Hindus: but were brought up under different environments. Subjected as they were to stern conditions they produced a warlike people. The educational activities of the Persians were thus aimed at Military instruction. It consisted in the acquisition of physical strength and valour, and was neither literary nor scholastic. The method of education of the Persians was correspondingly very informal. The results of one sided education were extremely undesirable. As long as the Persians gained sufficient military power in their own small country, it was quite all right. But things assumed quite a different aspect when they came into the possession of the entire eastern World. Too much wealth which came into their possession as a result of victory made them thoroughly vain, luxurious, and idle. The natural result was dissention and discord. Degeneration soon resulted, and brought about the downfall of the Persian Empire.

Educational ideals of Israelites.

With the downfall of the Persian Empire, then dawned a new era of civilisation. The principal part taken in this new era of civilisation was by the Israelites. Without surveying the history and religion of the Jews, we may pass on directly to consider their Educational Ideals. The chief aim of Jewish Education was religious and moral. The Jews strove to make their training practical; and directed it towards preparation for the concrete duties of life in matters of trade and occupation as well as of *religious* ceremonies.

Early education of children was accomplished in the family. During the early childhood both boys and girls were taken care of by the mother, but after childhood, fathers took special care of boys, while the mothers looked after the religious and ethical development of the girls. Elementary schools were introduced, in which both the rich and the poor received education. There was no fee charged from the poor students. The children belonging to wealthy parents had to pay a special school tax. As regards the internal organisation of the school the children had to stand upon the ground, and faced the teacher. Later on improvements were introduced, and benches were supplied to the students. The method of teaching was very much allied to that of the Chinese and the Hindus, but was followed rather intelligently. Due respect was shown to the teachers as they were the interpreters of truth and morals. Disrespect towards teachers was treated as irreverence and severely punished.

This resulted in the maintenance of rigorous discipline in the Jewish Schools.

One of the most redeeming feature of the Jewish education was that it reflected in a very beautiful manner on their family life. In a Jewish family women were shown due respect and esteem, and children were treated with kindness. It is due to the superior type of social, religious and educational conceptions that the Jews have so successfully passed over centuries of real vacillations and hard times.

From what has first been said, it may appear that the Jewish ideas were greatly advanced, as compared to those of the other ancient nations, yet they too were far from satisfactory. A real and solid advancement was made by the Greeks. They are said to have had a great influence upon civilization. The lives of the Greeks were dominated by athletic ideas. Their national environments also favoured the development of lofty, sublime, and national ideas. They made an exhaustive and extensive

survey of Man's Nature, and his requirements and were the first who felt that education should be taken seriously, and not lightly or merely as a means of amusement.

The Branches of Greek Education. Greek Education was divided into two main divisions:—

1. Physical Education which aimed more and more at beauty and grace, and
2. Mental Education which comprised literary and musical Education:

To impart education properly it was necessary that the ground must first be suitably prepared by the so called process of "purgation." According to the Greeks the conditions necessary for the attainment of education were:—(a) a noble nature; (b) continued action in the right direction; (c) proper instruction.

On account of these criteria the Greek Education was restricted to the wealthy and well born. It was only intended for the selected few and was confined to the members of the governing class.

As times advanced Greek Education was influenced by time and circumstances. Greek Education was progressive; and hence it changed with the changing needs of the country. As regards the influence of this education the Hellenic period (776—338 B.C.) and the Hellenistic Period (338 B.C.—313 A.D.) may be considered. Education during the first period was mainly practical, and consisted in the acquisition of accomplishments during leisure time. One of the chief accomplishments was Music. Hence it formed a very prominent part of the education of every Greek man and woman. Next in importance was Poetry. A person who knew both Music, and Poetry was called a person of 'letters.' The education in 'letters' was not imparted in any recognised institutions but was purely a business of the state which represented the highest Educational Institution. The Early Education was graded into: (a) Home or Family Education; (b) School Education; (c) College Education; (d) University or State Education.

Let us consider these in their order:—

(a) *Family Education:* As soon as a child was born great rejoicings were made in the Greek family, and prayers offered to gods to express their feelings of gratitude and to invoke their protection on the child. For seven years the child was

(d) *University Education*: The Greek University was represented by the state. It did not enjoy any separate identity of the type we have in modern days. The period of University Education was the best period. The Greek University aimed at producing a complete man and a full citizen. It maintained the Greek ideal of harmony.

From what has been said above it is clear that the distinguishing characteristics of Hellenic Education were unity, comprehensiveness, proportion and aimfulness. All forces were mustered together towards the State end in which the individual citizens were expected to find a medium for all their activities. But during the Hellenistic period this end was reversed, and the sphere of the individual was placed above that of the state. The state was considered as something subordinate to the individual and not its master.

WORK TO BE DONE FOR PEACE

BY

RAPHAEL HERMAN.

Political thinkers, economists, and philosophers have recognized the principle that for the solution of many of its own problems one nation depends on others. Hence, the teaching of history is a powerful force for moulding of international and national understanding and goodwill.

It is therefore essential that in order to prevent the contamination of the young mind by unwise and biased teaching, a right estimate of historical facts be ascertained and so imparted to the plastic mind of the young as to impress it indelibly with the idea that truth must not be made subservient to a desire to enforce a certain viewpoint or personal opinion which is invariably destructive to harmony and friendly relations.

Education should teach the great advantage of peace over war. Peace, with its great beneficial results, and the genuine happiness of the world, are the greatest and only achievements worth while.

It should be taught that the evolution of social, economic and political institutions, the growth of culture, the development in natural science and technology, and the progress of art, learning, and literature, are essentially international in their origin and scope.

Education for understanding must supplant education for credulity, according to Dr. John V. Collins. The elements of logic should be taught, and the power of discernment between the real and the unreal developed, and conflicting points of view on all subjects brought out and analyzed.

President Coolidge said, "Unless education can be based on a belief in mankind and in the power of the race as a whole to develop by response to the teaching of the truth, education might as well be abandoned. There is no moral standard so high that the people cannot be raised up to it."

Or, as President Wilson said, "Theoretical and ethical internationalism will not move the world until it becomes a matter of human passion, a normal manifestation of human nature; then it will become a force that will move nations toward spiritual unity."

The educator of today has great responsibilities. He has a divine task to perform, and that is to educate the young in the art of living in peace with their neighbours, and that truth will always win.

—WORLD EDUCATION.



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SOME PROBLEMS OF PHYSICAL AND HEALTH EDUCATION

BY

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I have been carrying on some work on behalf of the Safety First Association of India as a hobby—work connected with the welfare of the school child. I have included in my programme of work elementary hygiene and care of the school child.

In this work I have come in contact with pupils and teachers alike and have had opportunities to make some observations. It is on these meagre data that I am venturing to write this paper.

Both the Physical Education and the Health Education are of great importance in the life of students. With civilization and over-crowding their need has been felt to be greater and greater. These two are the direct and indirect aspects of preventive medicine.

If simply Education is a nation building activity, Physical and Health Education are greater still. But we should differentiate between Health Education and Physical Education. The problems connected with either are different and deserve separate consideration.

It is an oft repeated mistake that a school teacher has assumed that he is the sole guardian of the pupil. The parents are forgotten. Whatever programme of educational activity we undertake is bound to meet with failure unless the parents are equally keen and are in the know of things that are being done at school by school authorities. I need hardly remind that both the parents—the father and the mother must be consulted. The easy way to do this is to start without losing time parent-teacher associations and run them as active bodies.

Physical Education.

It will be advantageous at the outset to define what our ambitions are in this field. Do we aim at keeping our student

population just fit to carry on their work or wish to guide their physical development? If we are going to undertake the problem in all its aspects the proper stage to make a beginning is the one when the child is admitted first time to any school.

My firm belief is that it is not a sound policy to start with unhealthy children in schools. It will be a progressive step if all children before admission to school are properly examined by a qualified medical man. This examination should include both physical and mental tests. I am sure all will agree that mentally and physically defective children should not mix with the healthy ones. It is necessary to have separate classes and class-rooms if not separate schools—for the physically and mentally backward. This preliminary test will lead to economy. Children thus examined will have further to be examined periodically, throughout their career, and their physical chart maintained carefully up-to-date. Such medical examinations will necessarily need constant services of a qualified medical man not below the level of a graduate from one of our Indian Universities. We as educationists can approach the Universities to include in their medical course, at least post graduate course, School Health and Hygiene work as a speciality. It is my opinion that every school with a population of about 400 must have on its staff a qualified medical man not below the level of a graduate as a permanent paid member.

The manner in which medical inspection of schools and Colleges is carried out at different centres in our country at present is to my mind far from satisfactory.

Having provided for continuous inspection the next step will be to define some standards for various stages, *viz.*, 1. Primary and middle school stage, 2. High School stage, 3. Collegiate stage. At each stage again sorting out of fit and unfit will be advantageous. The present day College students are poor in physique, one notices incurable diseases in them, *e.g.*, progressive deafness. I am told tuberculosis is not uncommon in some areas in our country. It is a great economic loss to the parents and the institution to impart expensive education to a boy or a girl suffering from some incurable and progressive illness. At present there is no clear cut way to eliminate these unfit. I could cite many more examples to stress these points. The standards prescribed will have to be enforced by educational authorities.

The next important step will be to define the nature of physical education for different ages and different types of pupils—boys and girls.

My own idea is that different ages are suitable for different types of physical instruction.

The primary school child can only benefit if physical instruction is given in a form combining instruction with recreation. I may here mention the games lessons written out by the Safety First Association of India for this purpose. They are in my opinion admirable. The same will with advantage continue in the middle school. The high school age is more suited for team games. The collegiate stage is usually between ages 16—24. This is the most important age for the development of the body. If the scholar has been looked after in all his or her previous stages properly, the collegiate stage will be the best stage for heavy exercise, e.g., gymnastics. The choice of the type of exercise will be determined to suit circumstances. Both the indigenous and Western systems contain items suitable for all the stages I have referred to above.

I do not attach great importance to the discussion whether Indian or European system of physical education is preferable. It is more a matter for individual taste and capacity to spend. In general the European systems appear more expensive. But looking to the international ambitions before our youths it will not be advantageous to neglect European games. Although for the physical development of our generation the indigenous system must have ample scope—I should say this system will more than satisfactorily answer all demands.

Returning to the collegiate stage let me stress that, it is the age when heavy exercises are needed lest the mind of the student find scope for running after vice. The cry for giving sex instruction will be unnecessary if the young are tired out by heavy exercises and their minds occupied by physical work.

It is a secret which by practice alone will be revealed that the teacher taking part in all physical activities of the pupil is the key to success.

Health Education.

Health education is best imparted by the most direct methods. The schools should be planned and built in the most hygienic ways, the school premises should be kept scrupulously clean, and children and students should be shown how the schools can look to the practical aspects of hygiene. Every school must have adequate sanitary equipment. The lavatories and bathrooms should be an object lesson to the pupils. I suggest that in every lavatory notices be put up as "This lavatory is washed daily with

phenyle" or some similar caption. The reading of such statements will daily remind the pupil of a principle in hygiene and public health. Notices—"Spitting is a bad habit"—"Do not spit"—are likewise helpful. Schools and colleges must similarly provide drinking water. Here again direct method imposing portability of water can easily be achieved. A specified place should be selected and water kept in a careful manner with a board—"This is drinking water collected from our town water supply" or "This drinking water is from a well protected specially for drinking water". Many other small details of public health could be introduced to the minds of young boys and girls by posters prominently put up in schools and colleges. Most of the institutions have artists or drawing teachers who can easily do these. I may put forward in this direction another suggestion. Institutions could annually announce prizes for best illustration from pupils illustrating problem of public health.

Personal cleanliness is another matter of importance. Here again the example of the teacher will be the best lesson. If teachers themselves wear *inexpensive* and clean clothes the pupils will surely imitate.

If a daily or weekly what I call—'common sense' inspection of pupils is done by class teachers regarding cleanliness of clothes, nails, teeth, eyes etc, often much will be gained. A couple of rupees occasionally spent by a school in giving away a prize for best teeth, best nails, etc., will greatly encourage this aspect. Schools must give practical instruction in cleaning teeth, and washing hands and face to every child. Schools should provide numerous wash stands, soap, towels and mirrors. Practically all the programme in health education must be carried out in the primary stage of education. Once the child grows out of a well regulated childhood further stages will be safe.

Health education and Physical education could be coupled with social service. The one object lesson which will achieve this is a fire drill. Parading class for firework will be possible only with grown up boys and girls of the high school stage.

There are enormous problems awaiting solution. We cannot afford to sit in conferences and pass resolutions—we must work hard and put into practice such conclusions as we may wisely arrive at. It may be apparently experimenting—but life is an experiment. If we do not experiment we miss the chance of even failing. Let us act.

Of the various problems demanding our attention, I repeat in conclusion the following:—

1. Compulsory preliminary medical examination of each pupil prior to admission to a school.
2. Starting independent schools for physically and mentally unfit.
3. Periodical physical fitness examination in all institutions.
4. Different standards of physical fitness for different stages in the life of the students.
5. Grading of exercises for physical education.
6. Introducing advanced physical culture.
7. Consideration of the usefulness of military training.
8. Direct methods of Health education.
9. Employment of qualified medical men on staffs of all schools and colleges.

SMILE!

Smile! Smile! Smile!

'Tis better to smile than to sigh;
For when you spontaneously smile,
The phantoms of fear scurry by.

Smile! Smile! Smile!

Don't parley with doubt or despair;
A radiant smile from the heart
Will drive away sorrow and care.

Smile! Smile! Smile!

Serenely press on to the goal;
When burdens seem heavy to bear,
Smile from your innermost soul.

—Grenville Kleiser in *Health culture*.

SENILE DECAY AMONG TEACHERS: AND ITS CURE

BY

HUGH H. AITKEN.

The medical profession stands to be congratulated on the felicity of its nomenclature of diseases. The humble layman is much more crude in his expressions, and an apology may be required for the term, "senile decay." Yet perhaps it may stand; it has the merit of meaning just what it says, and it certainly is an expressive name for that dreadful disease which attacks everyone, dragging its victims down relentlessly and finally consigning them to the dust heap of forgotten things.

The prevalence of this disease cannot be denied. It is found everywhere, in every trade, profession and "walk" in life. It is recognised officially and unofficially. The worst feature of the disease is that its victims often refuse to admit they are suffering. A man will say, for example, that he feels as fit at 60 as he was at 16, but, unfortunately for him, he is never taken at his own estimate. The world judges him . . . and seldom agrees unless it be in those valedictory speeches when a clock or a silver service is handed over to comfort him on the dust heap.

In the teaching profession members are more liable to early attack than in any other "job." Though teachers are officially beyond cure at age 65, the disease is very bad in most by 55. Others are quite played out at 45, and at 35 or even at 25 the ravages of the trouble can be traced in more than a few. Senile decay is indeed a virulent disease among teachers.

On the other hand, curiously enough, the school never grows old. Roughly some 60 years ago, the school system as we all know it was born, and ever since its birth it has been in an experimental state. Long may it remain so, for as long as methods change in the search for "something better," so long will teaching keep out of the rut of a fixed system and the school will be a lusty and vigorous youth. The knowledge of that contains the germ of a cure for teachers who are attacked by senile decay, or rather, the preventive treatment is indicated there, for doctors are all agreed nowadays that prevention is

infinitely better than cure. Teachers who wish to be professionally healthy must adopt some form of treatment.

Perhaps it should be explained first what is meant by "senile decay." While physical fitness and good health are of first importance the senile decay which is so virulent in the profession is the inability to preserve the virgin eagerness for the important and great work a teacher has to do for the nation. It means old-fashionedness; it implies that teachers get into a rut and work away in the same old style year after year; it is the inability to admit change; it is that damnable state into which many teachers fall where they do their work all right in a way but lack enthusiasm and interest in the welfare of the child and the nation. "Come nicht, come ninepence" is a term we have heard used.

Teachers from the very nature of their work find it extremely difficult to resist the gradual onset of this disease. In fact, the very organisation of schools encourages it rather than otherwise. Teachers who, like the writer, were trained in 1903, are out of date when compared with those trained in 1933. No amount of effort can completely overcome that disability. The 1903-ers, of course, are the last to admit that they are one whit behind the 1933-ers, but that is just a symptom of this disease. They are comparatively old-fashioned, mentally weary, and all that; they simply cannot help it.

At this stage it should be recalled that one of the largest education Committees in Scotland has recently realised the incidence of this disease. Their idea of "curing" it is to appoint "doctors" in the form of supervisors who will visit schools and "report." What will really happen will be that the victims who are in the throes will be worried deeper into the disease. They will become worse, not better. The fact that the Educational Institute of Scotland is resisting this move shows that teachers realise the situation, but the criticism must be constructive as well as destructive; an alternative cure must be sought out.

No matter what cure is finally decided upon or, as we said above, "treatment," it will be direct in the main towards keeping teachers up to the scratch in all matters educational, in keeping them out of the rut and all that sort of thing. The mind will require to be alert to changes, new methods, experiments, to new branches of educational science, to analysis of older methods and the like. In order to do this they must meet together for discussion, they must hear what their fellows do, they must listen in turn to one another, they must nod to the

expert, they must lend an ear to those belauded, so-called specialists who have so much to say but who never had a class of 50 or 60 to look after. Not only that, but they should go to other schools and see things, see classes at work, see other methods, see new schools. That is the preventive treatment which we think will remove, at least to a great extent, the stigma of "senile decay."

We say "must"; we mean just that. The general body of teachers simply don't do it at present. They drift along into the disease. They *must* be compelled to keep themselves professionally healthy.

At present all these things we have in mind have to be done in the teacher's own time and that may be accepted as an excuse. School time should be devoted to this curative work. Education Committees must assist; it will be to the benefit of the schools. It need cost very little. During the absence of the regular teacher those students who are in training can get an opportunity to try their prentice hand, and most are agreed that at present they do not get sufficient opportunity to do so. The teacher may have to spend a little, but it need not be a great deal if area centres are suitably chosen. The student in training can be near home, and in that case actually save money. Of course, the plan indicated will require to be carefully thought out; only the "bones" are spoken of here.

The important point, of course, will be: "Is this the best preventive treatment?" This recalls a picture that will always live in our memory with what may be called title: "If you know of a better hole, go to it." We do not expect that any teacher who has taught for a good length of time will care to deny the fact that the disease exists with more or less virulence in everyone. Well, then, what about the cure of the treatment?

—THE SCOTTISH EDUCATIONAL JOURNAL.

VOCATIONAL EDUCATION

BY

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It is well for those engaged in educational work to make sure that they have a clear conception of the nature of "Vocational Education". Too often educators themselves have a vague notion of the relationship of vocational education to what is called general education. Nor is it clear in the minds of educational administrators whether vocational education and general education should be administered by the same or different units of instruction.

For our purposes let us accept the following definition of vocational education: "Any form of education whether given in a school or elsewhere, the purpose of which is to fit an individual to pursue effectively a recognised profitable employment, whether pursued for wages or otherwise." There is at the present time in this province in particular an increased interest being shown in vocational education as here defined.

It is necessary to distinguish between vocational education and vocational guidance. The latter has a very definite place in all secondary education for many of the young people found in secondary schools must enter some employment immediately upon leaving the school. They must therefore expect at least some vocational guidance while in school. At the same time it must be noted that vocational guidance is an integral part of vocational education. But it does not follow that vocational education is a part of vocational guidance. While it appears that there should be some vocational guidance before vocational education, we are not at all sure that there should not also be vocational guidance after vocational education.

These remarks are not made for the sake of confusing our thought, but rather to point out the fact that there is need for much careful thinking and planning on the part of those who are responsible for the shaping of educational systems that have to do with vocational education.

It was my privilege to observe, during the past year, an educational system in which ample provision had been made for vocational education. Those responsible for the system had

accepted the philosophy that called for a separation of vocational education from general education. They had accordingly set up a separate organisation which was charged with the responsibility of providing training for boys and girls as well as adults in occupations and trades in which they might find employment within their own geographical area.

The training offered in the vocational schools within this system provided: (1) Vocational fitness in which the individual acquired those skills, attitudes, and ideals which would make for his success in the particular vocation which he might pursue; (2) Education for Civism, or as they stated it "education to fit for friendly, co-operative, and dutiful action toward other human beings". Under this heading would be included instruction in what we now know as civics, history, geography, economics, sociology, and some science. But all these will be built around the idea that the happiness and the complete development of the individual form the soundest bases for good citizenship; (3) Physical Education, such as to fit the individual to take his place in society as a competent worker and citizen—under this heading would be included matters pertaining to safety and health, both bodily and mental, as well as actual participation in games and exercises; (4) Personal Economics which would enable the individual to care properly for his economic wants. Here would be included such topics as banking, saving, investments, insurance, etc.

Not less than fifty per cent of the time given to instruction is in the field of vocational fitness. The curriculum offered here is entirely dependent, of course, upon the needs of the individual in view of the occupations found within the area. In the boy's vocational schools there are courses in automobile mechanics, building construction, carpentry cabinet work, drafting, electrical courses, industrial chemistry, machine shop work, painting and decorating, printing, radio service, restaurant service, sheet metal work, welding, etc. In the girls' schools there are offered courses in the Art Trades, Beauty Culture, Business Trades, Hotel Restaurant and Home Service, Restaurant Management, Multi-Occupations, Needle Trades, etc.

The drafting of the curriculum for a vocational school is a matter of very great importance. It must not be too inclusive, nor must it be so meagre that the students completing it are under-trained for their work. In the system which I observed there was an attempt to provide only that subject-matter that would fit the individual to do successfully the tasks involved at the time of entering into the occupation. Some people would

include in the curriculum of vocational schools materials which are not directly related to the occupation, but which might provide the student a chance to gain a promotion after having entered the occupation. Short courses can easily be offered so that those who have finished the regular course may return at any time and prepare themselves for promotion to more technical work if they so desire. It is, after all, a matter of interest, and one learns much better where interest is found in abundance.

Vocational school administrators must keep in close touch with the industrial life of their province, not only for the purpose of keeping the curriculum up to date, but also for the proper placing of their graduates. The system about which we are speaking maintained an up-to-date placement bureau. Complete detailed information is kept on file regarding the needs of employers, and young people are being sent constantly into jobs for which they have been prepared. There is no dearth of employment, for when it is seen that there is no longer a demand for workmen in any given field, training is no longer offered for it; as new vocations and occupations open up the schools begin at once to prepare workmen for them.

We have said but little about one of the most important parts of vocational education, namely, training in good citizenship, or as it has been called, civism. Every teacher in a vocational school must be aware of the fact that the individual is to be not only a workman, but also a member of society. The teacher must therefore attempt at all times to create within the student those attitudes and ideals that will make him always conduct himself as becomes a good citizen. This is as important in vocational education as it is in general education. Placing an emphasis upon honest work, high ideals of conduct, and right living is among the duties of the teacher.

MUSIC INVADES THE PUBLIC SCHOOL CURRICULUM

BY

HOWARD HANSON

Director of Eastman School of Music

To consider what music, if properly taught, may accomplish, let us arbitrarily divide the student body into four parts: (1) the "unmusical" students who display neither aptitude for music nor interest in it; (2) the students of average or below average musical capacity, who, nevertheless, are not without interest; (3) the students of average or above average musical capacity who have, perhaps, some aptitude for individual performance and an interest in the art; and (4) the students of superior musical talent.

Group one is very small; and for those few students who, in the teacher's judgment, definitely exhibit neither aptitude nor interest I should recommend no music instruction whatsoever, provided, of course, that the tendency of the small boy to appear disinterested in the arts is not mistaken for honest indifference! If any instruction is given to this group, it should be confined to assembly singing of tunes which the student knows or which he can learn by note, and to the type of listening courses usually grouped under "music appreciation."

We come now to the second group—the large mass of students with average or even below average musical capacities, but with some interest in the subject. This interest will vary, of course, from the passive interest of the student who does not actively dislike music to the active interest of the highly appreciative student; it does not, according to my observation, correlate in any very definite way with the amount of what we call "musical talent." The student with small musical capacity may secure an enormous amount of enjoyment from the experience of music even though he may never attain any proficiency as a performer. Indeed some of our greatest music-lovers belong to this group, and it is a vicious theory that only technically gifted persons can enjoy music.

For this group, mass singing should be approached as a musical experience rather than as a technical problem. Whatever technique is used must be considered the means and not the end. Material should be drawn from the greatest melodies

of all musical literature, past and present. The teacher should indicate something of the meaning of the words, perhaps the circumstances in which the music came into being, and then inspire the class to do the best job possible singing it. In the hands of an able teacher the group thus learns social cooperation of the highest type while undergoing subconsciously an emotional and spiritual development. Indeed, this education of the emotions, this increase of sensitiveness to beauty, may be the outstanding aim in music education.

If I have been somewhat insistent on a less technical approach to music reading and group singing, I may seem inconsistent when I complain of the juvenility of certain music appreciation courses. But I believe there is no fundamental inconsistency. Sight reading involves several important musical capacities, such as pitch discrimination and tonal memory, which might be of a low order or even almost wholly absent in some students. But the study of music history is essentially not different from any other division of historical investigation. Yet I have seen courses in music appreciation and history taught in a manner hopelessly juvenile in comparison with courses in history, literature, and science at the same level. Why, when discussing music, a mature teacher should indulge in anecdotes of doubtful authenticity and bathe the entire subject in a wash of sentimentality, I have never been able to understand. A serious consideration of music in the college and high school would bring advantages both to the study of music and the study of history. This type of music appreciation can profit our second division of students.

In the younger students of this group, a type of music appreciation, which consists not of history, but a type which primarily stimulates the listening faculty is of real importance. Focusing and holding the mental attention in music is even more difficult than concentrating on the words of a speaker, because tone suggests no material image. Even such elementary procedures as simple musical memory tests develop the child's powers of aural concentration.

The third group we have classified as students of average or above average musical capacity. The instruction suggested for "group two" students is valid for this group, but it hardly goes far enough. While it is difficult to afford extensive personal supervision, even to worthwhile talents, yet it is perhaps not too much to hope that ways may be eventually found to segregate certain students on the more technical form of training from which they can profit. I am not recommending that the elementary and

secondary schools be turned into music schools, but I am suggesting that the basic technic of music reading, for example, be confined to the smaller group of students for whom the work would be both pleasant and beneficial. These are the students who are capable of musical development: the future members of our bands, orchestras, glee clubs, and choruses—organizations which are in a very real sense the evidence of the significant musical development in our public schools. With proper opportunities these students can become valuable musical additions to the adult communities of the future, though perhaps none of them will ever become professional.

The fourth group consists of students of superior musical talent. I am not particularly ardent for the super-developed music department which gives every type of technical instruction. The unusually talented student needs the same general educational background as does his less musically gifted brother. The school can do its best work by allowing such a student a reasonable amount of time, in terms of credit, for musical study and practice, and then to insist, sympathetically, that the remainder of his time must be devoted to those courses which will best develop his as an all-round social person.

This is a middle ground. The musically-talented child 25 years ago crowded music into the hours outside of school, producing over-wrought young nerves and sometimes irreparable damage. Today, in some cases, the tendency is to allow the talented student to ride fast and free in the direction of the bent of his own abilities without a guiding check-rein. The important musician of the future will be the man of broad general background, social understanding, sound judgment, keen intellect, and a high sense of personal ethics. The best time to develop this attitude and to destroy the falsely romantic ideal of the long-haired, self-centered, egoistical, and irresponsible musician is from the first moment he is submitted to educational guidance.

Music's invasion of the public schools has not only greatly affected the curriculum, but has had an enormous effect on music itself. Thus a great art which had been the special property of the talented or privileged few has been thrown open to school children in the form of a democratic music education. The public schools have taught us that Beethoven symphonies may be played not only by professionals but by boys and girls for their own development and enjoyment. The school has taught us that musical talent is no respecter of race, creed, or color, that the Atlantic Ocean has no sterilizing effect on musical talent. And these musical children of ours have brought to music a freshness

of viewpoint, a catholicity of taste, and a refreshing honesty. The snobbishness of the professional concert hall, which has been more successful than any other influence in postponing a vigorous creative movement in this country, is refreshingly absent. Children like music for its own sake because it does something to them and for them without bias or prejudice.

—THE EDUCATION DIGEST.

THE FILM IN EDUCATION

BY

SHEIKH IFTEKHAR RASOOL.

The Teaching of Natural History.

The general aims of the teaching of Natural History are, in the elementary stage, to awaken interest in plant and animal life and in natural scenery, to train accuracy of observation, essential for the simple investigation of common phenomena, and to promote kindness to animals. Consideration of the general scientific principles underlying the phenomena observed, should be postponed until sufficient data have been collected to suggest the existence of such principles. The scope of the teaching in the junior stage will be determined by the age of the children who receive it, the qualifications and bent of the teacher, the accommodation and equipment available for simple experiments, and the character of the district in which the school is situated. In the senior stage the course will be of the nature of serious study in so far as it trains the pupils to look below the surface of things for reasons and principles.

With children of five to seven years of age 'the teaching will have served its purpose if it keeps alive the curiosity of the children, interests them in natural phenomena and leads them to make observations which can be put to fuller use later. For very young children nature is represented by all living things around them and by the sky, the wind and all natural phenomena. It is not the time for counting petals or comparing stems, but for satisfying an interest in living things aroused by their beauty of colour and form, and in the doings of animals.

Interest in Living Things.

This should be aim of all films made for educational purposes. Schools in rural areas are favourably situated for the observation of seasonal changes such as the unfolding of buds and ultimate fall of the leaves; the development of flowers, fruit and the dispersal of seeds; the nesting and migration of birds; the activities and hibernation of hedgehogs and squirrels. Town schools unprovided with gardens have far more limited opportunities for out-door observations, and are dependent mainly on

the parks, on specimens procured from the country, and those that will grow in classrooms and laboratories. But even these schools have many pupils who keep pets of some kind or other and provide material for interesting work on the habits and care of animals, suitable for producing such films. For children who have been able to see the actual animals and their activities, the films provide an excellent method of recapitulation, and may also be used at tests of observation and memory.

It is also necessary that the children should have constant opportunity for close contact with plant and animal life, for noting the simpler natural phenomena, and recording observations which can be put to fuller use in the later stages.

The children can assume more definite responsibility for looking after the animals and plants kept indoors, *e.g.*, washing the flower vases and arranging the flowers brought to school or obtained from the garden; changing the water in the vases; preparing seed pans and window boxes; sponging, dusting and watering the plants; making plant labels; sowing seeds; setting up germination experiments; changing the water in the smaller aquaria; feeding the tadpoles, stickle-backs and other forms of pond life; cleaning out the caterpillar cases and putting in fresh leaves.

Guidance in Method.

It should not be forgotten that the course should be progressive, and any investigation should have a clearly defined aim. Natural history lends itself readily to group or individual work, and children who show particular aptitudes for special lines of study should be encouraged to pursue them.

Although the subject of investigation need not be uniform for every child, it will be better for subsequent preview work and discussion if the tasks appointed have a common aim. For example, if the study of locomotion be the aim of investigation, the various individuals or groups can choose from a great variety of animals affording material for observations on jumping, hopping, crawling, walking, flying, swimming, and other methods of movement. If very diverse subjects be chosen, and one group for instance investigate the seed dispersal of plants, while another is concerned with the life history of a fish, there will be little common ground for discussions, and less to be gained by the whole group from the films shown.

The children in the junior stages will have watched the growth of a number of plants and germination of a variety of seeds, and will have become familiar with the parts of a flower,

inclusion of a consideration of the effect of the weather conditions and soils on the nature of the crops grown in the locality. The planning of the work must always be dependent on the material to be obtained in the district, and on the co-operation of farmers, and of officials responsible for parks and public gardens.

In India need for such films is very great. It is to be hoped that they will be produced sooner by some enterprising producers thereby bringing in the classroom a dynamic visual concept of life in its multitudinous manifestations.

HOMEMAKING FOR BOYS

BY

JEANNE SWAN LUCKEY.

One of the greatest services which any individual can contribute to his community is the building of a happy home. For years the girl has been trained for home living, while the boy has been left to rely principally upon impulse for his means of adjustment to other people and especially to the opposite sex.

From time immemorial it has been a tradition that all work outside the home must be done by men, and that all work in the home must be done by women. There is now a large field of industry in which work may be done equally well by both men and women. Since such service yields a wage return, more and more women are being employed in industries outside the home and men must cooperate by helping with the household duties. In many of our modern families, the children also contribute their share to the family coffer. These conditions, together with the fact that many families have no steady income, have brought us face to face with real problems. New psychological, social, and economic adjustments are being made in schools as well as in homes.

High school is no longer for a selected group. Children who in prosperous times would be working are now coming to school. Many of them expect to obtain from high school some training in a vocation which will enable them to earn a living. The school must plan to place these children in surroundings best suited to their interests and abilities.

Many of our schools have recognized these needs and are presenting materials to meet these new and growing demands. For several seasons some of our high school boys have asked for a class in cooking. A little practical experience had proved interesting and had shown them the desirability of more study. Last year when a new vocational curriculum was organized, a cooking class for boys was offered primarily to give some boys a chance for vocational tryouts in the food industries. Boys from other curriculums elected the course, so we have broadened our aims in an endeavor to meet the needs of a group with varied interests.

As each boy is now a member of a family group and is a potential "head" of a future family, homemaking is of prime importance. In the beginning of our course the boy is made to see that the buying and preparing of food, the choice and construction of clothing, the spending of the income, proper housing, the training of little children, the care of the sick, and good manners are significant principally in the way that they enable him to improve his attitude toward his family and his community.

To carry out such aims we have formulated these objectives:

(1) To teach boys to live a larger and better life and to appreciate its finer things;

(2) To instil an appreciation of a comfortable, convenient home;

(3) To stimulate an interest in foods in relation to health;

(4) To develop skill in simple cookery processes at home and in camp, and to provide a vocational tryout for some;

(5) To give an appreciation of a kitchen as a wellplanned workshop;

(6) To point out the value of cleanliness and careful habits of work in the home workshop;

(7) To enable the boy to plan, prepare, and serve well-balanced, attractive dinners to guests;

(8) To inculcate the ability to spend, to the best advantage, the money allowed for food;

(9) To increase the ability to choose meals away from home;

(10) To further the appreciation of the duties of a host upon all occasions;

(11) To satisfy the desire for proper social etiquette at home, on the street, at dances, and elsewhere;

(12) To stimulate the right attitude toward manners and social conduct;

(13) To give an understanding of preventive methods and of remedies necessary for common emergencies in case of accident or sickness in the home;

(14) To develop an interest and appreciation on the part of the boy in:

in nutritive value, attractiveness, and cost with those meals eaten in commercial establishments.

Camp cookery makes an interesting approach to a foods unit. Simple foods which may be eaten at home or in camp are prepared. Camp terms such as flap-jacks, kabobs, and twisters appeal to the boy. When the weather permits, "grub" committees plan for outside picnics.

Boys must be impressed with the fact that the kitchen is a workshop where neatness, cleanliness, and order abound. Even the washing of dishes becomes more pleasant when presented on an efficiency plane. Visits to outstanding commercial kitchens with a view to inspecting sanitary conditions, methods of work and order, give a clearer understanding of the need for well-planned, organized work at home and at school.

The real knowledge of foods to include in the daily diet comes with the actual preparation and serving of meals. Breakfasts, luncheons, and dinners are taken as individual projects. Food combinations are chosen which will be suitable to all members of the family. Our problem is to serve simple and inexpensive yet attractive and wellbalanced meals because that is what most of the pupils must plan to do. Weekly menus are developed for families on various income levels.

Each boy, taking a second and third session of foods, has opportunity to help serve company dinners. Two boys act as hosts, some as waiters, others as cooks. Some special projects included in this session's work have included serving other boys, teachers, girls from foods classes, and high school clubs.

The planning and serving of meals gives the boy a better knowledge of the nutritive value of food. Marketing for the groceries increases his ability to recognize the relation between cost of food and quality. He develops more skill in preparing food, gains greater appreciation of correct table-setting and serving, and has an opportunity to practice some rules of etiquette.

Discussions of the art of being a good host introduce other problems of social conduct. The boys all want to do the correct thing on every occasion. After a discussion of such a topic as, "What manners do girls particularly want their boy friends to have?" the teacher has all kinds of assistance proffered in duties about the laboratory. However, there are lapses in such etiquette, and whenever a reminder is necessary, it is easy to work in one more lesson on the desirability of good manners.

A boy chooses a vocation in which he is interested, learns what qualifications he must have for this job and the remuneration

offered. Some boys are investigating possibilities and opportunities offered by jobs on railroad dining and Pullman cars. Trips to the dairy, bakery, ice-cream plant, meatslaughter house, grocery stores, and hotel kitchens make valuable contributions to other boys. Talks from food specialists are beneficial.

Minor accidents which occur on camping trips or in the kitchen present the problem of first aid which develops into a brief, practical unit in nursing. Even though the boy does not have an opportunity to care for cases of illness in his home, he will have gained a keener appreciation of the work involved.

In the tailoring classes the boy repairs and alters clothing, doing such things as patching, darning, sewing on buttons, machine and hand stitching. He does cleaning and pressing and makes trips to dry-cleaning plants and tailoring shops. He is able to relate the amount spent for clothing to the amount spent for other items of the budget. He learns to choose suitable clothing for himself.

Do we have proof that this teaching is carrying over into the lives of the boys? We think so. We can see much improvement in the classroom. Reports from home are favorable. A junior-highschool counselor remarks that even boys who have strictly outlined college entrance requirements to meet, desire to take cooking as additional work. That most boys do not consider it "sissy" is proved by the fact that a football boy has elected to return for a third session of the work. We are sure that the attitude most of the boys have toward their homes has improved, and that in itself is enough to make us feel that we have done something to better their relations with other human beings.

—THE JOURNAL OF THE NATIONAL EDUCATION ASSOCIATION,
U.S.A.

PRE-PRIMARY EDUCATION.

BY

MISS M. SHAIHANE,

Principal, Nursery and Kindergarten Training School, Poona.

Before planning any further various curricula for the primary schools we must devote our attention to what happens to the child at home. It is very essential to achieve a great many phases of human character in the process of great development through Pre-Primary Education.

A child from 2 years to 6 years is bound to run wild and waste all that tremendous energy in spilling his father's ink or breaking the utensils of the mother. This waste of human power could be beneficially diverted in developing the child's character at its best.

Three main points must be stressed in Child Education:—

- (1) Habit Training.
- (2) Character Building.
- (3) Individual Development of the Child.

To accomplish these points I have divided Child Education into three phases:—

- (1) Physical development.
- (2) Mental growth.
- (3) Social Development.

In order to bring about these changes the following sciences are correlated:—

- (1) Psychology—Mental Testing and Behaviour problems.
- (2) Biology and Hygiene.
- (3) Social Chemistry.
- (4) Parent Education.
- (5) Education in General.

At present there is not one centre where these sciences are taught but I hope to do my best in the Nursery and Kindergarten Training School that I am running at Poona.

Nursery and Kindergarten Training School.

The School work is divided into three sections:—

- (1) Habit Training Centre—for Child Training called Bal-Vikas-Mandir.
- (2) Teacher Training Centre—where Matriculate students are for a two years' Diploma course.
- (3) Research—not working as yet.

The school was opened only on June, 15th 1936, and is barely six months old.

The children are limited to a definite number for next three years.

The methods used for Child Training are (1) Montessori (2) Froebel; (3) Project; (4) Psychological observations.

Grouping System of Education.

The children are divided into various groups for education according to their ages. The groups are:—

- (1) From 2 to 3 years of age.
- (2) „ 3 to 4 „ „
- (3) „ 4 to 5 „ „
- (4) „ 5 to 6 & 7 „ „

Mental Tests—being used are:—

- (1) Dr. Buhlers Tests—given from 3 months onwards.
- (2) Merrill—Palmer's Tests.

At present the school is quite new but I earnestly hope to improve it and make it an international and interprovincial Research centre, as far as Child Training is concerned.

Those who are anxious to promote Child Training should come forward and help this centre to grow slowly but surely. All help will be welcome to make this experiments in Child Training a real success for the benefit of the nation at large.

GROWING UP WITH TREES

BY

LYDIA LION ROBERTS.

In speaking about conditions among the natives of Africa, Livingston once said, "When a tribe takes an interest in trees, it becomes more attached to the spot in which they are planted, and they prove one of the civilizing influences."

If we in these modern times value our trees, wish to endorse reforestation and agree that Livingstone's words are applicable to conditions in our country to-day, we shall teach our children the worth and dignity of a tree. We shall try to open their eyes from babyhood to the dignity and gracious beauty of green branches set in the pattern of a tree growing tall against the sky.

Every child should be taught to regard trees as blessings, as natural assets of life, as treasures which must be guarded from vandalism and cherished for both practical and esthetic reasons. A little ceremony may add to the pleasure when a tree is planted on home grounds; perhaps each child may be given a tree of his own to care for and especially enjoy. A tree diary or record might be kept by the children as seasons bring their changes to the young trees and growth increases their beauty.

If the city plants trees along certain sidewalks, the children should be helped to think of them as a personal responsibility and realize that these trees are adding to the value and attractiveness of their home, street and city. They may water the trees, protect them from injury and take pride in their steady growth. The trees in parks and reservations, in picnic grounds and woodlands are in great need of this attitude on the part of young people. There is much need of education for both child and adult and the importance of saving our trees and spreading the understanding of tree-lore.

The schools try to foster this appreciation of trees by suggestion, story and song, and by observance of Arbor Day. Sometimes the planting of trees on the school grounds is made an occasion for instilling a love and admiration for all trees. The parents often cooperate with the teachers by attending the exercises or contributing something towards them, or at least by

showing a definite interest in the subject and inspiring their children to further study.

We plant trees for many reasons; we should be sure that the children know these reasons, that they understand how trees regarded by both the practical man and the poet, by the farmer and the architect, the home-lover and the traveller. Anyone interested in child development, in character training, or anyone who works as parent, education, or merely as a friend will be wise to include an appreciation and love of trees as part of his programme with children. I began with a quotation from Livingstone, let me close with one from Luther Burbank. He once said, "The substantial the thrifty, the worthy, and the likeable classes of people plant trees—the planted and tended tree is as sure a sign of civilization as a revered flag, or a church spide or a school-house belfry."

—HOME EDUCATION.

A BRIEF SURVEY OF SCHOLARS' PROGRESS IN PRIMARY SCHOOLS, UNDER A DISTRICT BOARD

BY

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Introductory.

Primary Education and a knowledge of the three R's are said to be the birthright of every citizen in every country and the minimum educational requirements of all persons of both the sexes. It was for this reason that Compulsory Primary Education Acts were passed in our Provinces also. But it is a fact, though an unpleasant one, that Primary Education has not yet made much headway. It has failed to catch the imagination of the people and wherever it has been introduced, it has not been attended by the success it deserved. Inefficiency on the part of teachers, half-hearted measures on the part of local bodies, reluctance on the part of the Committees to enforce compulsion, and unwillingness on the part of magistrates to inflict punishment are all responsible for the disappointing results in Compulsory Education areas.

Some Problems of Primary Education.

But even if we ignore the too ambitious programme of universal primary education and confine our attention to the achievements of those students only who, willingly or unwillingly, happen to come to our schools, we are sure to be disappointed. Most of them do not complete the Primary Course and in many cases they give up their education much earlier. Then again literacy, in most cases, is not of a permanent nature and after a few years the so-called 'munshis' forget all they learnt in schools. There is too much stagnation, and the classes become thinner and thinner as we go up. But even the strength of classes is not a true indicator of the extent of leakage because fresh students continue to come in. It is only when we trace the careers of a particular batch of students, that we can have a correct idea of the extent of leakage.

Method of Investigation.

In order to study these problems from the statistical point of view I made a brief survey of the progress of scholars in Primary Schools, under a certain District Board. Through the courtesy of the Deputy Inspector of Schools, I was able to get the necessary material for the study from about 100 Primary Schools of the district. But in some cases the information supplied was not to the point and so I had to depend for my conclusions on 139 schools only. We know that there is too much stagnation in the Infant class and a large number of students give up their studies in that class. For this reason such scholars were not taken notice of. The careers of only those students were studied who were on roll in class I in September, 1930. The year 1930 had been selected because the students of that years' batch have had six years by now and in this period they could normally be expected to have passed Class IV, even if two years be allowed for failure in the four Examinations. The month of September was selected because by that month admissions and withdrawals are usually over. The results of the investigation are as follows:

There were 1872 students in Class I in all the 139 schools of the district. Of these only 443 continued in the same school till they passed the Class IV Examination. 28 of them died and 24 are still plodding on their weary way and might take 7 years or more to finish the four years' course. All the rest (1377) had left the mother institutions before they could pass the IV Class Examination.

Of the 443 students, who could manage to pass the Primary stage, 277 obtained their Transfer Certificates and they may be taken to have prosecuted their studies even beyond the Primary stage. The remaining 166 students did not proceed further because their Transfer Certificates have not yet been issued. Thus we see that out of 1872 students in Class I only 277 can be said with certainty to go in for studies beyond the Primary stage.

Of the 1377 students, who left their original schools before passing Class IV, 129 had taken their Transfer Certificates and it can be safely assumed that they joined some other school, Vernacular or Anglo-Vernacular. But it is not possible to trace their subsequent careers. The remaining 1248 can be said to have given up their studies even before completing the Primary Stage, as their Transfer Certificates have not been issued.

Again these 1248 students are spread over all the four classes of a Primary School and the largest number belongs to

Class I. 196 of them left from Class IV, 240 from Class III, 280 from Class II, and 532 from Class I. It is apparent that about 43 per cent of these students left where they had started. Most of them do not go high enough to retain an abiding interest in reading and writing and so naturally literacy is not of a permanent nature.

This is the condition of Vernacular Education under District Boards and this the extent of leakage. For a ready reference the facts are given below in a tabular form:—

Number of Schools.	Number of students on Roll in Class I in September 1930.	Number of students of this batch who passed Class IV from the original school.	Number of students who took their Transfer Certificates on passing Class IV.	Number of students who did not take Transfer Certificates on passing Class IV.	Number of students who left the original schools before passing Class IV and did not take their Transfer Certificates.				Number of students who left the original school before passing Class IV but took their Transfer Certificates.	Number of students who are still reading in the same school.	Casualties.
					IV	III	II	I			
139	1872	443	277	166	196	240	280	532	129	24	28
					TOTAL 1248.						

WHEN CHILDREN ARE AFRAID

BY

H. S. LIPPMAN, M.D.

The emotion associated with fear is referred to as anxiety. Whenever the subject of anxiety is discussed one must differentiate between what is known as objective and neurotic anxiety. By objective anxiety is meant the fear displayed by a child in situations that generally provoke fear in children. It is to be expected, for example, that a child will be afraid of a menacing dog, of a rapidly approaching automobile, of noises in the dark, or of a bullying older child. Most of the fears are conditioned by early unpleasant experiences in somewhat similar situations. Many of them result from the fact that others in their environment—brothers and sisters, parents, companions—have these fears and the child, through imitation or identification, behaves similarly. Many of these fears are purposely instilled into the child because of their usefulness as a means of protection against threatening danger. For example, it is important that the child abandon his carefree attitude in crossing the street or in walking along a ledge high up off the ground. In this sense fear, although unpleasant, is preferable to the pain or misfortune that might result in the absence of fear. At times, however, this protective fear becomes too great. A condition of panic results, and the individual is left helpless.

It is more difficult for the lay person to understand what is meant by neurotic anxiety. As used in this article, neurotic anxiety refers to a state of anxious tension and fear associated with dangers that are unknown to the individual. Psycho-analysis has been particularly concerned with this subject for the last forty years or more, and it is only in the last decade or so that special attention has been paid by the psycho-analytic group to this anxiety in children. It has been apparent to the analysts, through their study of neurotic adults, that the problem should be approached earlier in the life of the individual because it is at this time that these anxieties have developed. Under this heading are grouped phobias, night terrors, indefinable fears, and a general state of anxiety that cannot be explained by the sufferer.

As one might expect, the very young child, because of his insecurity, is more subject to fears than older children. As he

acquires information and knowledge, he understands that many of these fears are unwarranted. As he becomes strong physically he becomes more secure and is better able to protect himself. He learns to fight, to run fast, and in other ways to avoid situations that formerly threatened him. It is not always true that the more facts one has the less need there is for fear, for in some instances, through added knowledge, one is able to fear situations that are dangerous. Freud illustrates this by the native who recognizes the footprints of a dangerous animal.

It is often difficult to locate the source of fears which have been conditioned at some time in the remote past unknown to the individual. It is unfortunate that these are often difficult to trace; for if it were possible to trace them they might readily disappear. Writers in the field of conditioned reflexes and experiments have discussed this subject thoroughly. They point out methods of conditioning the child favorably by combining the feared situation with something pleasant and agreeable.

Without any further description of those fears which are known to the child and which cause him suffering, I should like to discuss the important subject of indefinable fears and anxieties experienced by so many children. Some appear to be more susceptible than others to such fears and may develop them under conditions which, on the surface, at least, fail to explain their appearance. This is well illustrated in the case of a certain young child who was tense and anxious, afraid of the dark and of animals. A study of the conditions surrounding him revealed the fact that the mother had not wanted him to be born. Although outwardly very kind to him and considerate of his needs, she has rarely responded to his demands for affection. He has the material comforts he needs but lacks the affection without which he cannot feel secure. Those who deal with behavior problems in children have learned to differentiate between the expressed and repressed attitudes of the parent toward the child. The child is keenly aware of the deeper attitudes and reacts to them. We find that time spent in uncovering and modifying the unconscious attitudes of the parent to the child, whose anxieties can't be explained, is often time well spent.

One of the manifestations of anxiety in a child is the night terror. The child may awaken at night trembling with fear; screaming that there are animals in the room that will devour him, that the house is collapsing or burning, or men are chasing him with knives. After being quieted, he may fall asleep and remember nothing of the attack when he awakens in the morning. At times he will recall a terrifying dream, but often he will not,

Because of the frequency with which this symptom occurs, it may be well to discuss it in some detail, including treatment suggestions.

Dr. Ernest Jones, of London, has written a comprehensive book on this subject which covers his researches over a period of twenty years, and is convinced that most of the nightmares are due to deep emotional conflicts. They are apt to occur in the period between three and six years of age when the child is making his emotional adjustment to his parents. Flugel, in his book *Psychoanalytic Study of the Family*, describes this process of emotional adjustment in detail. There are certain routine recommendations which can be followed out in case the child is suffering from this condition:

Have the child given a thorough physical examination to rule out infections which may be undermining vitality and resistance.

Avoid all physical and emotional excitement from the time the child has his evening meal until the time of retiring. Determine if the child is overfatigued.

Do not give the child a heavy evening meal.

Try to learn from the child if there is anyone whom he fears among his playmates, his companions, or perhaps teachers or parents. Possibly he has been attacked by some animal or has been frightened by someone saying that the Bogey Man or a ghost will get him.

Try to determine how he gets along with his brothers and sisters, father and mother. Maybe someone in the family is holding a threat over him for something he has done. Perhaps he is afraid that his mother will make good a threat to leave the children because they are making so much noise. Maybe the father and mother are not getting along well together, quarrel a great deal, and threaten to separate.

Try to determine if he has developed sexual habits which are disturbing him. Perhaps he is worrying that something will happen to him because of these habits, or perhaps he has been threatened by his parents if he continues. Be sure he is not sleeping in the same room as his parents.

Maybe he is upset by some accident he has seen, or some funeral he has attended.

The above recommendations have to do with factors which precipitate the nightmare as well as those which are more underlying. In many cases, if these recommendations are carried out, the night terrors will disappear. If they persist, it would be well to have the child more thoroughly studied.

There may be times when the child is afraid of the dark, that assuring him there is nothing to fear and turning out the light may give him a feeling of security. In the main, however, this is not the case and it may be necessary to leave the light on in the room and even have someone sleep in the room with the child for a short time until he feels secure enough to try to sleep alone. It is difficult to apply any rules that cannot or should not be broken. We have known instances where a well-intentioned parent has increased her problem a great deal by insisting that the light be turned out before the child was ready for this.

What applies to the treatment of night terrors applies equally to any serious anxiety state or phobia in a child. These conditions are abnormal and are due to factors which can be discovered if enough time is given to them and if the proper sources for help are contacted. The simplest directions for treatment in this respect may be the most difficult to follow. This is illustrated by the advice frequently given the parents not to show their own anxieties in the presence of their children. This implies economic security or a good adjustment to, or acceptance of, the lack of such security; the emotional acceptance of each other by the parents; mutual confidence; good physical health; adequate food, clothes, and shelter.

The child who develops anxieties readily is generally found to have parents who are anxious and worried. Their anxieties are increased by his symptoms and so a vicious circle is established. In such a case the best procedure to adopt, in so far as it is possible, is to try to improve the conditions under which the anxious child lives, attempting to build up the confidence of the parents to restore their lost morale, to teach them how to live and play. Many of them have a sense of guilt if they try to seek entertainment when unemployed. They must learn to feel that if this entertainment or pleasure can make them feel secure it is their duty as parents to take advantage of whatever entertainment the community provides.

We are not surprised to find that in these troubled times the problem of anxiety has been a major one. It is the cause for referring an increasing number of children to our clinic.

THE MEDIUM OF INSTRUCTION—A REVIEW

Language, Universities and Nationalism in India. By Som Nath Chib M.A., B.A. (Cantab), Lecturer in English, Dyal Singh College, Lahore. (Rupee one. The Oxford University Press).

The problem of the medium of instruction is of vital importance in India. In order to form a correct opinion one must first gauge the exact situation with all its implications and subtleties. Mr. Chib's essay supplies the necessary data. With an earnest desire to present the problem in all its bearings he places facts as they really are. Extracts from reports of Committee meetings and international Conferences, books and speeches, provide a material at once useful for reference as well as essential for a thoughtful handling of the situation.

The essay approaches the question logically. It starts discussing what Hindustani really means and what position our languages occupy today in the education of Indian Youth, and also how national awakening has contributed to the imperative need of solving the problem of the medium of instruction. It then recommends "a plan with necessary changes to be made in various provinces."

Mr. Chib's conclusions are practical and are imbued with a high degree of commonsense. The essay will fully repay careful reading. It is specially commended to the serious attention of educationists and politicians. It is searching, thorough and convincing.

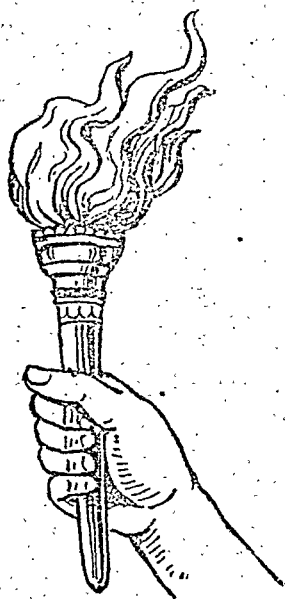
—H. P. A.

VOL. II

No. 8

THE INDIAN JOURNAL OF EDUCATION

MANAGING EDITOR:
D. P. KHATTRY



AUGUST, 1937

ALL-INDIA FEDERATION OF
EDUCATIONAL ASSOCIATIONS

POST-BOX 52, CAWNPORE

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Editors' Note

The Editors will be glad to receive contributions on all matters educational and particularly invite for publication (a) authoritative articles on educational topics; (b) short articles dealing with educational research; (c) accounts of educational experiments; (d) articles containing statistics and their application to the solution of educational problems; (e) short notices of original works; (f) news of interest to educational workers.

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Delra Dun Ranger students studying the effects of a heavy thinning in a young deciduous pole forest.

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FORESTRY EDUCATION IN INDIA

BY

R. MACLAGAN GORRIE, D.Sc.,

Indian Forest Service.

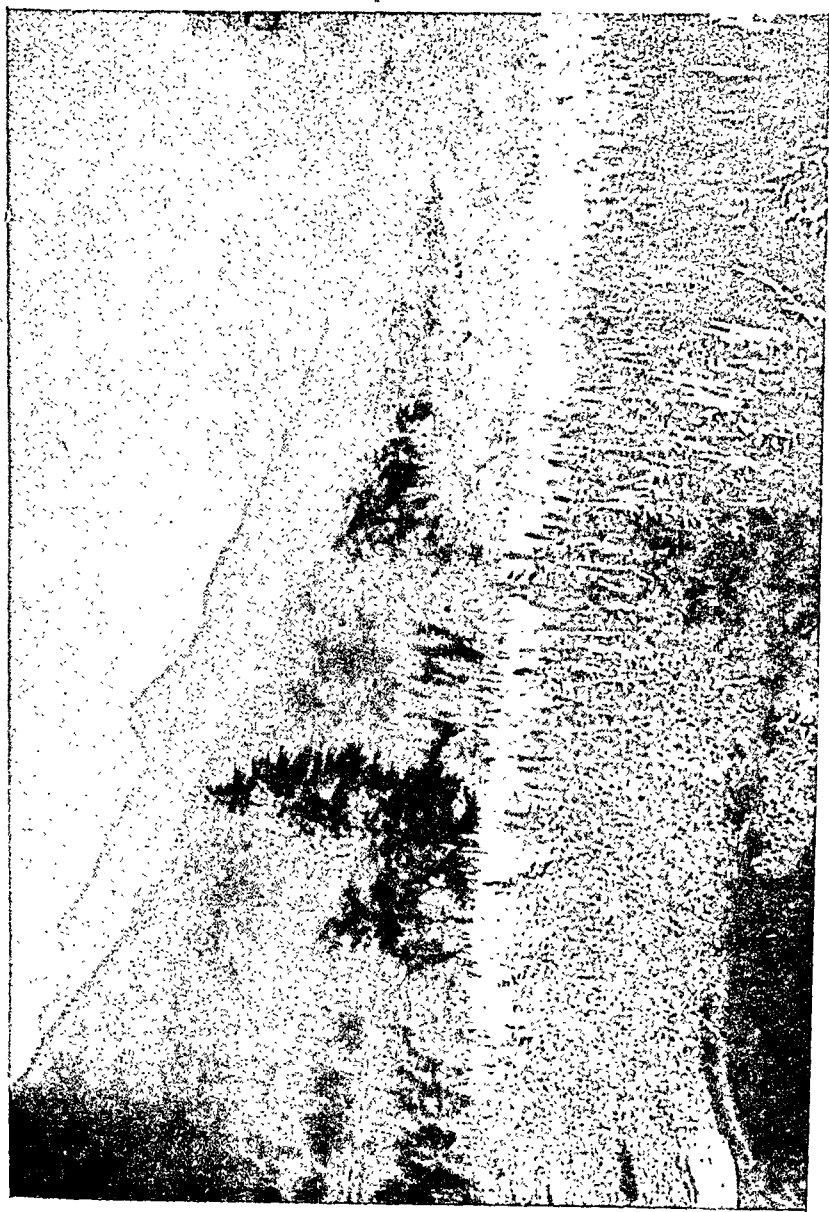
The area of forest under government control in India is over 100,000 square miles, apart from very large areas in states and private ownership. The revenue has recently been as much as 3 million pounds sterling, but this gives no indication of the very important protective value of the forest in conserving water supplies, or of its intrinsic value in the life of the Indian villager, who depends upon it for a great many of his needs such as house timber, fuel, and fodder. The percentage of forest varies greatly between provinces, but roughly one quarter of the total land area is under forest. This vast and valuable estate has been under the control of a trained forest staff since Sir Deitrich Brandis first undertook to organise a service in 1856, and its protection and commercial development have been steadily improved. Further increase in its productiveness as an item of national wealth must obviously depend in future upon two things, efficient outdoor control in the forest itself, and extensive research. For both of these functions a well trained staff is essential.

The early officers, including Brandis himself, had received their technical training either in Germany or France. The need for trained subordinates was first met by training apprentices in the forest, but this was not a success, and in 1878 a school was opened at Dehra Dun, which is excellently situated amongst valuable *sāl* forests which have been fully used for instructional purposes. Until 1913 a college board of control arranged the conduct of examinations and the curriculum of studies, but this has since been done by an advisory board of forestry with the Inspector-General of Forests as president.

In the early days recruits came from all over India, but in 1898 a separate school was started in Burma, and in 1912 another forest school was opened in Coimbatore which now trains the forest rangers required by the southern states and provinces, including Madras, Bombay, Bihar, and Orissa. The original vernacular class for the lower grades was replaced by provincial forest schools which were established in most provinces. Such courses usually run for 6 or 9 months and give an essentially practical training in silviculture, forest management, and simple survey work. Most entrants are men who have already served as forest guards on Rs. 16 or 18 per month, and on completion of this course are promoted to the post of the forester on Rs. 25.

The Rangers' course lasts for 2 years. The minimum qualification for entry is matriculation, but actually the competition is so keen that a much higher standard is observed, except in the case of state nominees. Candidates have to serve 4 months attached to a forest division before joining the class. This ensures some knowledge of practical jungle work and is a very necessary introduction because most of the candidates are directly recruited and have little or no knowledge of forest life or conditions. The subjects taught include:—silviculture; forest utilisation; forest working plans; mathematics and forest mensuration; forest engineering; sufficient chemistry and physics to understand geology and soils; botany including the collection and preservation of plants; surveying; geometrical and map drawing; forest law, accounts, and procedure. A great deal of the 2 years is however spent in camp, the main lecture term being during the rains from July to October, and the other two terms being largely field work. This touring is confined to the United Provinces and Punjab forests. Considerable emphasis is placed upon sports training and team games, because physical fitness is of course one of the first essentials for a forest ranger. On appointment the young ranger usually receives a pay of about Rs. 80 per month.

In 1912 a separate 2 year course was inaugurated at Dehra Dun for the training of provincial gazetted officers, and was continued until 1925, when it was replaced by a new class for imperial service officers, the recruitment of the latter from British universities being by then more or less closed. This imperial service class remained open until 1932, when owing to lack of recruits during those years of depression, it was closed down, followed in 1934 by the Rangers' class which was also closed for 2 years when the provincial governments would not send any nominees. It has since been reopened, and preparations are



The Kulu valley, where the Dehra Dun Forest College students are taken for part of their practical training.

already in hand for reopening an officers' class which will provide recruits for the provincial cadres under the new constitution. It is expected that this new class will begin in April of either 1938 or 1939.

The imperial service course followed much the same curriculum as the Rangers' class, but the recruits being better educated to start with, it was possible to cover considerably more ground in the same period of 2 years. More emphasis was laid on the silviculture of Indian trees, and on the technique of working plans, which form the basis for all forest management. The practical tours went further afield and included parts of Bengal and Madras as well as the hill and plains forests of the United Provinces and the Punjab.

The technical ability of a forest officer depends to a great extent on his being able to compare and analyse the different types of plant life and botanical "associations" with which he has to deal, and this knowledge can only be acquired through wide travel which enables him to recognise alterations in types. Under the new constitution there will be considerably more danger of a parochial outlook than in the past, owing to the narrower limits of the individual officer's experience, and it is to be hoped that sufficient opportunity for travel in other provinces or abroad will be provided for the new officers' class when it is started. A sure means of fighting the parochial outlook is to ensure that each recruit gets a wide experience while he is a student probationer, so that he can base his Judgement upon a wider variety of methods of work and types of vegetation than can be seen within his own province. This is important in all the outdoor sciences, but is particularly so in forestry, because there are so few examples of forests in which scientific management has been in force long enough to produce the desired results. One of the most valuable features of the older forest officers' training in Europe was that they could form definite mental pictures of the kind of forest which could be produced by long continued scientific management.

The type of man required for forest work is a self-reliant, healthy individual who can face long periods of loneliness with equanimity. He must have some outdoor interests and hobbies other than the actual limits of his professional work, and he must have a sympathetic understanding of the wants of the simple forest villager, whose opinion of government is good or bad according to his experience with the only official he ever meets, namely, the forest officer.

PROBLEMS OF UNIVERSITY EDUCATION IN AMERICA

(Extracts from the Report of the President of Columbia University for 1936).

Revolution by Taxation.

There are various types of social, economic and political revolutions. Not all of them are achieved by force. The most subtle type of revolution which confronts American democracy today is that which is easily and silently possible through taxation. It so happens that taxation is one of the functions which a free people have entrusted to their government, of course with the expectation that it would be a function exercised in accordance with the fundamental principles on which the nation itself is organized. The most fundamental and far-reaching of these principles is the distinction between the field of Government and the field of Liberty. The former is definitely described and delimited in formal and written terms, and the machinery for its exercise, as well as that for its supervision and enforcement, is provided in a written constitution. The field of Liberty, on the other hand, is unlimited save by the powers definitely entrusted to Government. In the field of Liberty it is, and always has been, characteristic of the American people to cooperate in a variety of ways to establish and to maintain institutions for the public service in the field of philanthropy, of public health, of the arts and sciences and of education in the broadest possible sense of that word. Undertakings of this kind in the field of Liberty, although not official as would be the case were they maintained by Government, are nevertheless public in every possible meaning of that word. Such institutions and undertakings are maintained for the public by the benefactions of those individual citizens who are moved by generous impulse to give of their gains and their savings for the public welfare and the advancement of the public good.

All this great variety of public service in the field of Liberty has been undertaken, and can only continue to exist, because of personal benefactions. If, therefore, Government undertakes, in the exercise of its duly granted powers, to adopt and to enforce a scheme of taxation which makes these benefactions for the public service in the field of Liberty impossible, then Government is attacking the public interest and the public service at their very

foundation. Neither Communism nor Fascism could do more. It is shutting its eyes to the fact that what is public is infinitely larger and more important than what is official, and that the public interest itself is served through private benefaction in hundreds of ways which Government could not successfully imitate if it would. It is estimated that the monetary value of the various undertakings for public service in the United States that have been brought into existence in the field of Liberty is many hundreds of millions, and that the amount annually given, under normal economic conditions for the support of these public service undertakings by individual benefaction reaches more than half a billion dollars.

As a general rule Government recognizes, as public opinion should always compel it to do, the public service character of these undertakings and institutions by exempting from taxation the physical properties which they occupy in order to carry on their work. It should also be required to exempt from taxation the properties which they hold for investment when the income from such investments is applied to the public service. It would be just as reasonable to tax a courthouse, a city hall or a public park as to tax the property of an institution established in the field of Liberty to serve the public in any one of the ways which are here described.

Owing to the uninstructed state of public opinion on this fundamental subject, it is of highest importance that it be everywhere emphasized at the present time. Should this not be the case, American people may one day wake up to find that their most respected, most beloved and most successful institutions of public service in the field of Liberty have been either crippled or destroyed, and that they must look to the halting, imperfect and often incompetent hands of Government to undertake in wretched fashion the tasks which were once being dealt with so well. When the people are being constantly exhorted to open their eyes to the possibility of obvious political revolution with all its attendant disasters, they should not be permitted to overlook the possibility of a quiet but persistent, if unseen, revolution against their highest interests and their best service through a wholly improper use of the power of taxation.

All moneys given or bequeathed for public service in the field of Liberty must be exempted from taxation of any kind—whether federal, state or local. Let moneys retained for personal, for family or for other private uses be taxed if need be, but not those to which the public must look for much that is best in its national life. The weight of the burden of tax-exemption should

always be borne by the tax-exempting authority, the state, and never put solely upon the taxpayers of the neighbourhood where the tax-exempt property is situated.

That citizen who dies possessed of say \$30,000,000 simply hands the greater portion of it to the impersonal and ungrateful federal and state governments to spend as they see fit. Were he to retain one-tenth of that sum and be content to live in the luxury that its income would make possible, and give nine-tenths of his fortune to the endowment of public service institutions in the field of Liberty, he would render that public service in ways of his own choosing and thereby gain lasting reputation as a public benefactor.

The money-hugging habit is the enemy of such high-minded and broad-minded action. Until those who possess great wealth over-come this habit, Government, largely guided by the active pressure groups which prey upon it, will flourish at the cost of Liberty with its ideal of free and constructive cooperation of citizens inspired only by zeal for public service.

Instruction is not Education.

The steady tendency toward the bureaucratic standardization and regimentation of all school and college work which has now been going on in the United States for a full generation, has done and is doing serious damage to the cause of education. The American people are expending year by year hundreds of millions of dollars for the construction and support of schools, the influence of which as reflected in the minds and characters of so many of the millions entrusted to their care, is very far from what it should be.

No matter how varied the types of student may be or how various their several individual personalities, education fails entirely unless it provides them, each and all, with a common intellectual denominator. The practice and polity of permitting the student who is a mere child to choose his own subjects of study without direction or oversight, or to pursue those and only those which appeal to his taste or to his fancy, is a complete denial of the whole educational process. This is what may be called the rabbit-theory of education, according to which any infant is encouraged to roam about an enclosed field, nibbling here and there at whatever root or flower or weed may, for the moment, attract his attention or tempt his appetite. All this is described by the ludicrous term of self-expression. Those who call this type of school work progressive, reveal themselves as afloat on a sea of inexperience without chart or compass or even rudder.

The youth thus deprived of the privilege of real instruction and real discipline, is sent into the world bereft of his great intellectual and moral inheritance. His own share of the world's intellectual and moral wealth has been withheld from him. It is no wonder that the best use he can so often find to make of his time is to try, by whatever means he can devise, to share the material wealth of some of his fellows.

With all this there has gone the tendency to confine judgment upon a pupil's progress in school to his technical performance at formal examinations. Thus a widespread system of formulating the educational process in terms of points or hours, and of measuring educational progress by the mere results of periodical tests of work prescribed for these points and hours, has been brought into existence. There could hardly be a more complete abdication of the teacher's true function than that marked by practices of this sort. The results are to be seen in the untrained, undisciplined and even uninformed minds to be found in so great numbers among the school children and school graduates of to-day.

The effects of this series of happenings on the work of the American college are most unfortunate. The results of formal instruction are relatively easy to test and to measure, while the results of guidance, of discipline and of inspiration are only to be found in those intangible qualities which are reflected in good morals and good manners, in other words in fine personality. This is not difficult to recognize, but it is quite impossible to measure it by mechanical devices.

It was never more important than now to resist the habit of treating instruction as if it were identical with education and as if it alone constituted the entire educational process. The guidance, the discipline and the inspiration which should accompany and condition instruction are the vitally important educational instrumentalities. The mere possession of information, however multiform and however accurate, is no test or assurance whatsoever that an education has been had or even begun.

The American college, when it opens its doors to undergraduate students, does so with the hope and the purpose of admitting such, and only such as desire a college education and who, it is reasonable to believe, will address themselves to getting that education in the best and most helpful way that is possible. These undergraduate students are called upon to pay academic fees, but the college itself from its own resources must expend upon such students at least as much again as each individual

student pays to the college. Therefore, if it is to discharge its trust, the college must make sure that it accepts and keeps upon its rolls only those undergraduate students who are worthy of receiving this generous favor, and who show themselves desirous of profiting by their educational opportunity and of taking every possible advantage which that opportunity has to offer.

Any other conception of college education must result in turning the college into a mere factory with degrees and honors for sale at so much per point, the point to be gained by formal examination upon the subject matter of instruction alone. All character-building influences are pushed aside and all those qualities and characteristics which go to the making of an educated American gentleman are treated as if they did not exist. Where these conditions prevail the college is a machine for turning out instruction, and not a seat of learning to give all that is meant by the true significance of the word "education." Character, conduct and sound mental habits come first; information, however important, is subordinate to them.

Law School.

Fortunately, University instruction in law is year by year growing both broader and deeper, and the guidance of individual students and of small groups is steadily displacing, or at least supplementing, the mass lecture-room instruction which was at one time so generally and almost exclusively used in schools of law. The increasing importance of public law, of knowledge of the legal systems of other lands than our own, and the cultivation of the whole field of international relations in terms both of law and of economics and the social order, are all forces and tendencies which directly affect the work of the Law School and which increase its importance for the life of the present day world.

This work deserves and should have physical equipment which is fully adequate and comfortable.

Teachers College.

In the United States the word 'education' is used to cover a multitude of sins. From the academic point of view it is by no means so easy to describe and to define as are the terms law, medicine, engineering and architecture. Probably the term 'business' most nearly rivals 'education' in indefiniteness and variety of application. One result is and has been that there is constant and heavy pressure upon Teachers College to undertake

all sorts and kinds of tasks which, though more or less important and valuable in themselves, are after all quite subordinate to the outstanding purpose of the College, which is to study education philosophically, historically and practically, as a manifestation of the activity of man, and to give those who wish to seek their life work in this field cognizance of what it is all about, what experience has to teach, what sound principles have been developed and how the tasks of the immediate future are best to be envisaged and approached. In addition, there is appropriately enough the carrying forward of research in this great field and the publication of the results of such research. Unfortunately, the word research has come to be pretty loosely used, especially in the fields of education and the social order. Much that is called research in education and in the social order is nothing more than the laborious rearrangement of the obvious. Such tasks are not worth doing and are certainly not worth spending money upon. Indeed, the practical question of how to meet the cost of what should be done and can only be done by Teachers College and like institutions, is becoming more pressing day by day.

Teachers College should not be called upon to spend any of its income in duplication of work of this kind, but should be set free to concentrate upon the study of education and the preparation in the broadest sense of men and women who wish to make teaching their life work.

No one expects civilization to stand still, and the educational process must be kept in harmony with the changing civilization which the history of the past illustrates and which the future so obviously has in store.

Conclusion.

The integration of all efforts of intellectual endeavour and the close association of them and their scholarly representatives, is a factor of determining significance in guiding and developing the intellectual life of the American people. If this earth is to be the home of a true and lasting democracy, it must be a democracy which will develop its own aristocracy and be guided and governed by it. A democratic aristocracy will not be one of birth, of wealth or of privilege of any kind. It will be one brought into existence from the very heart of the people themselves, by offering to all that opportunity to climb the ladder of distinction of which any one may take advantage. Government of the people, by the people and for the people is something very

different from government of the mob, by the mob and for the mob. It is the business of the university to insist upon this distinction and to see to it that public opinion is brought to recognize it and to act upon it.

A DUET OF TEA

A charming duet on "A NICE CUP OF TEA" is a popular song-hit in Mr. C. B. Cochran's revue "Home and Beauty" which is drawing record crowds to a London theatre. The following are the words of the song—

Some folks put much reliance,
On politics and science:
There's only one hero for me.
His praise we should be roaring,
The man who thought of pouring
The first boiling water into tea.
You can talk about your science and your airships in the sky,
I can do without the wireless and you'll never see me fly,
And anyone can have my vote and chuck it in the sea,
But, by golly, there'd be trouble if they tried to touch my tea.
I like a nice cup of tea in the morning
For to start the day you see,
And at half-past eleven,
Well, my idea of heaven
Is a nice cup of tea.
I like a nice cup of tea with my dinner
And a nice cup of tea with my tea,
And when it's time for bed
There's a lot to be said
For a nice cup of tea.

—*Tea News & Views, June, 1937,*

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REORGANISATION OF AIMS AT THE VARIOUS STAGES OF EDUCATION

BY

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The Government of India circular on Educational Reconstruction is a remarkable document. It abounds in statements that no scientific student of Education can accept. In this paper I can but confine myself to only one such statement—the declared aim of the Reconstruction. The resolution of the Universities' Conference which aims at the diversion of pupils of an early stage to vocational schools as a remedy for unemployment, is like prescribing 'Bleeding' for Tuberculosis. This is a remedy that had been tried and found wanting in all the western countries. Should we not learn from these examples? Should we always remain a second-hand copy of what England was 50 years before. I am not against covering the whole of India if you like, with technical schools if it is useful and necessary. But I object to calling it either Educational Reconstruction or a remedy for unemployment. But the best brains of the world no longer consider that Vocational Education is a remedy against unemployment, whether of the educated or the uneducated, nor is the diversion of pupils to vocational schools at an early age considered the best thing for the pupil or for society.

This conception of Education as something intended to make a man earn his living arose in the 19th century and was intended to pacify and win over the poor intelligentsia of the country to the side of the Governing classes. It was considered an inferior kind of education good enough for these classes. Years ago Ruskin warned the working classes of England against this conception. You know the result of the policy, Europe is fast becoming two armed camps—Fascists and Communists.

The very efficiency of technical education, by replacing unskilled men by skilled men and skilled men by machines continuously throws out of employment a large number of both unskilled and skilled workmen. All this talk about literary and mechanical aptitude is a psychology of wish-fulfilment. It has no scientific basis to stand upon. And what is more important, no psychologist of standing claims that he has discovered a

satisfactory method of detecting these aptitudes at an early age, at the end of the shortened secondary course.

Dr. Lorge of the Columbia University writes in 'The Teacher' College Record':—

"Vocational guidance is in danger of making a virtue of Charlatanism. If, in spite of proof of the impossibility of vocational guidance, counsellors continue to concoct undemonstrable predictions and continue to claim an impossible panacea for youth's maladjustment, and continue to pretend to wonderful knowledge, they will be Charlatans—Charlatans no less than the phrenologists who will claim to read character; Charlatans no less than the physiognomists who discover potential criminals. Vocational guidance based upon whatever analysis, tests, hunches, and records that are part of current stock-in-trade of the vocational counsellor is no better."

Therefore, so long as huge rewards in the form of emoluments or honours go to the University graduate, any attempt to divert pupils at an early age to vocation would be rightly considered as an attempt to keep the highly paid Government service as a preserve for the never-do-well sons of influential men.

Even now, undoubtedly, there is a lot of unemployment among the technically trained men. We do not hear of them much because they are generally poor and uninfluential. We hear a good deal of this among graduates because they are either rich and influential or compete with the rich and influential for the plums of office. Principal Saiyidain of Aligarh tells us that in the United Provinces the technical schools are not being utilised effectively because students trained in them do not find scope for the exercise of their technical aptitudes. This is so in all parts of India as far as I know.

The pupils seem to understand the position better than the teachers. Last May, I happened to overhear a conversation among pupils after an enthusiastic lecture on the "Need for Vocational Education." They were saying, "What rot are they talking? We do not want vocational education from them. Let them show us or create the vocation in which we could be employed. We can find the required training in spite of them if need be. Ten years ago there were practically no motor cars in Salem. No one knew anything about car driving or motor mechanism. Now buses are running everywhere and every other man knows how to drive a car and some of them are good mechanics too. No school taught them."

From the point of view of removing unemployment in India, finding out or creating occupations in which our youths can be

employed, is the first thing to be done. The second is to employ more men and reduce the amount of work for each. The first is being done by every country other than India. The second is being attempted by President Roosevelt in America. And this finding or creating occupations for the unemployed and the more equitable distribution of wealth are essentially economic and social problems. We, teachers, in the words of a writer in *The Year of Book of Education, 1936*, should emphatically declare clearly and unmistakably that the solution of this problem is impossible within the compass of any educational measures. Education should decline to be saddled with the odium which may be called forth by the breakdown of impossible experiments. The lay world has still some belief in the principles of old China—"Hang the teacher, if the pupil commits murder." The politician naturally wants to take advantage of this attitude of the pupil and tries to throw the blame for any failure on the teacher.

In the pleasure of seeing that our own sphere of activities is enlarged, we teachers, are likely to lose sight of the gravity of the whole position. If we succumb to the temptation and accept this aim, we shall be doing a disservice to our country. To put in a report that millions of pupils are engaged in learning a trade may form a minute's pleasant reading. We may even take comfort from such a state of affairs. "An institutional camouflage might be mistaken for progress and the attempt to find solution for the social and economic problems would thereby have been shelved."

We complain that we are not as much respected as our predecessors in office—the old *gurus*. We forget that they taught neither for money nor to make their pupils earn money. But we do nothing else. We have not been true to our profession. We have allowed the politician to boss over us too much and too long. The whole nation is now paying for this folly. Unless we wake up and produce, not wage or salary earners, but really educated men and women, India will soon revert to the law of the jungle.

"Where he may take who has the power,
And he may keep who can."

Who is this educated man that can prevent this and whom it is the function of education to produce?

I do not say that he must be unable to earn his own living. Neither do I say that he who can earn his living is an educated man. Earning one's livelihood is irrelevant from the point of

view of education. But I do say, with all the emphasis I can command, that the man who is not satisfied with a salary or income ten times the average individual income of the nation is essentially an uneducated man; and he who wants a hundred times and thousand times the income, is worse, is a barbarian in the truest sense of the word.

The teacher is a product of evolution. In all climes and in every community we could distinguish two types of people—those who toil and save, and those who wish to rob or cheat them of the results of their toil. But among both these classes there were always some pacifically disposed who hated these quarrels, who would bring man and man together, though they themselves might suffer in the attempt. They stood by the robber type, the king or the military man, in the form of a ‘medicine man, the wise-man, the priest, the learned man, the lawyer or the minister,’ and educated him to moderate the robbery. They stood by the toiler and consoled him, if nothing else was available, with the tales of the world to come. In both cases, the teacher was a disinterested adviser. The old teacher was not a hireling paid to do his master’s bidding. Disinterested honest service has even been the motto of an educated man. You will see, that is the idea that comes uppermost in your mind when you begin to think of the difference between an educated and an uneducated man. We freely say, “I don’t expect this or that of an educated man.” What do we mean? We do not mean that he ought to earn a hundred rupees, Rs.200/-, Rs. 5000/- etc. a month. What we mean is, that we expect a certain standard of conduct in an educated man—tolerance, sympathy, a sense of real value etc.

I know I would be told that it is old fashioned and Utopian. No doubt it will be Utopian until the ‘educated’ classes have no other ideal except to get the largest pay with the least amount of work. If the educated classes do not give up this recently got ideal, if the educated classes would not accept a standard of salary and income which is not much above the average income of the nation, no educational reconstruction would save us from disaster. Fascism or the worst form of Bolshevism would be the result. So, our aim in education should be to facilitate this change in our ideals. This change cannot be brought about by any one type of education, vocational, or liberal, manual or intellectual.

As early as 1652, Terrard Winstanly taught that there should be no special class of children brought up to book learning only. “For, then, through idleness, they spend their time to find out policies to advance themselves to be lords and masters

over their labouring brethren, which occasions all trouble in the world. Therefore, it is necessary and profitable for the commonwealth that all children be trained to labour and to learning."

Again, from the point of view of education for democracy, it is realised that "No system of education can be satisfactory if one section of pupils is led, even subconsciously, to assume an air of superiority over other sections." Pupils should be kept together in the same kind of institution as long as possible. Lord Percy, in his book, *Education At The Cross Roads*, pleads for such a kind of Reconstruction. So far, from saying that the University should not control the education in the schools, Lord Percy wants the Universities to take up full control over all kinds of education. He says, "Every school is to regard itself as preparing its pupils for a higher stage of education; every institution of higher education is to regard itself as setting a standard for the schools below it; every pupil is to regard himself as pursuing a connected course of study which will if he so desired, carry him from childhood to manhood." He goes on to say that all forms of vocational institutions should form part of the University. At no stage they should be considered separate institutions that are supposed to cater to the needs of those who cannot enter the Universities.

In any scheme of education, the old dualism of culture versus utility, vocational versus liberal education, must be given up. Literary and Scientific studies and the practical pursuits should occupy parallel positions in the whole scheme of education from the elementary school through the Secondary school, to the end of the University course. A collector or a clerk will be a better collector or a better clerk if he has been made to do a bit of gardening or wood-work when he was at school.

It is only this kind of educational reconstruction that can keep out any form of undesirable 'Bolshevism' and form enduring foundations for future progress.

What should be the curriculum at each stage and how it should be worked so as to produce the kind of educated man I have described here, are questions that have to be dealt with separately.

BROADENING THE SCOPE OF VOCATIONAL TRAINING

(Adapted from The Journal of National Education Association, U.S.A.)

Should training for occupations below the expert or professional level be provided by or under the supervision of secondary schools, or should it be provided by nonschool agencies, leaving the individual and these agencies jointly responsible to society for results?

Numerous secondary schools have not waited for the issue to be settled on the basis of approved principles of education. In response to the needs of pupils, they have already enrolled one million boys, girls, and adults in specialized vocational courses.

This has evoked criticism from persons who maintain that the primary functions of schools are to promote the integration of pupils with society and to provide the social, economic, and moral education essential to good citizenship. The chief objections made against vocational training in the secondary schools are:

(1) General education is more important. (2) Early selection of a vocation often leads to maladjustment. (3) Experiments in organizing secondary-school curriculums with vocational objectives have not proved successful. (4) Change is so rapid today that the training a pupil receives is of little practical benefit. (5) Industries large and small prefer to give vocational training to youth with a good foundation of general education.

A careful evaluation of these arguments does not lead to the conclusion that training for occupational life should be omitted from the secondary-school program. Secondary education can no longer be considered as training for leadership; secondary schools must attempt to serve the interests and needs of every individual. The need for vocational training is undisputed. Those who favour the highschool's giving the needed training point to the fact that no other agency is meeting the need, and conclude that the highschool should assume the responsibility.

It is further argued that the earlier an individual selects some vocational interest, the greater effort he will make in all his studies. Public control of vocational education, it is said, is necessary to safeguard the interests of society, and especially

those of young workers. The consumer value of vocational education is also stressed.

The present program of vocational training does not meet the larger responsibilities of vocational education. But those who doubt that the secondary school *can* provide an effective program of vocational training should view the defects of the present program in light of progress made in the few years since secondary schools entered the field.

As a basis for a dynamic vocational program, an extensive survey should be made of the major needs and values of our society; and of our resources, equipment, personnel, and technology.

Vocational education should begin in the senior highschool. In view of the present retention of pupils in school, it is unnecessary to attempt differentiated education for the various major fields of service below the senior highschool level. Junior colleges should recognize the same general obligations toward vocational education as the senior highschool, with the additional provision that training should be more expert in caliber. Even in small schools, something should be done to provide for the vocational interest of pupils. Provision for vocational education of adults is also needed.

The secondary school should recognize the fundamental importance of vocational education as an agency for the betterment of society and as a magnificent instrument for reaching the social objectives of the conventional school subjects. No program of secondary education should be regarded as acceptable unless some provision is made for specialized vocational education and for the vocational aspects of general education. A wide extension of cooperation between school and community is needed to make possible an effective program of training in the various skills necessary to carry on the work of society today.

HAS EDUCATION FAILED?

BY

FRANK E. BAKER

(*By the Courtesy of The Education Digest*)

From the standpoint of the individual, public education has two social functions. In the first place, it must develop in him a deep respect for the human personality, an intense love for it, and a keen desire to promote its welfare. In the second place, it must develop in him the capacity, the social intelligence, to promote the common welfare.

In common parlance, then, the first function of the public school is to turn out people imbued with the desire to make this a better world to live in. How well have the schools succeeded in accomplishing it? A candid appraisal leads to an answer that is not flattering.

In the first place, schools have measured their own work in terms of material rather than human values. Nearly 20 years ago the Bureau of Education issued a pamphlet entitled *The Money Value of an Education*. I think it is safe to say that this booklet furnished the materials for more high-powered addresses before chambers of commerce, luncheon clubs, and commencement audiences than any other single product of the printing press.

Not only have the schools measured their own work by material values, they have apparently placed the indelible stamp of property on their product. While it cannot be claimed that the members of our law-making bodies are the supreme products of our educational mill, nevertheless they are products. That their first consideration in the making of laws has been property rather than people is a matter of common knowledge.

If there is any one group of public servants that represent the best product of our educational system it is the judiciary. And yet in the administration of justice in American democracy, property has invariably been placed above personality.

That education has failed in developing the capacity to promote the public weal is evident in its product, and the failure could have been fore-seen by an intelligent appraisal of methods and materials employed in the educational process. Neither

show evidence of an organised effort to teach children to think below the surface on social problems; in fact, the public schools have offered little opportunity to think about those vague, indefinite problems involved in modern social organization. The schools have been interested in problems with definite answers, either right or wrong, problems that could be answered by a key or an encyclopedia or the dictionary. But social problems do not usually have definite answers; hence, such problems are eschewed in the average classroom.

In bygone days scholars of the Western World gradually cast aside the binding chains of authoritarianism, and began to collect and organize that vast body of tested truth that has become the guide of all that we do and say, so far as what we do and say is in the realm of the natural universe. But by one of those strange contradictions of human progress we have failed to extend the scientific attitude into other realms of life. In the social and political fields we are still guided by authority and emotional bias, more than by tested truth.

The responsibility of education for this failure is difficult to determine. One can only argue from an *a priori* basis. But even on such ground there is considerable evidence. The very fact of the absence of a socioscientific attitude is in itself an indictment of public education.

One thing is certain—those of us who have shaped present-day America did not have the opportunity to develop our social capacities through experiences in social problems. Seldom if ever were we confronted with the subtle complexities of social life. We never discussed such problems as the distribution of income, the relation of real wages to the value of the manufactured product, the relation of debt to production, the spread between the cost of production and the cost to the consumer, population trends, racial prejudices, cultural relationships, relation of productive capacity to consuming capacity, or technological unemployment.

In fact, there is a good deal of support to the thesis that at least up to the last decade the public schools have pretty carefully avoided any treatment whatever, either scientific or unscientific, of the problems of our social environment.

There is one other charge of failure to which public education must answer. That our social relations are palsied with moral confusion, and our political controls with lawlessness, needs no demonstration. The only questions open to discussion are the causes of the conditions and the responsibilities of public education for them.

At the outset it should be noted that the primary responsibility for moral education does not rest on the schools. The burden of developing in the hearts and minds of children those attitudes that we call moral rests squarely on the family. The family has a right to expect and demand the cooperation of the school, but it cannot evade the primary responsibility, and it cannot now shift the blame for the moral debacle by hurling charges of failure at the schools.

The society that does not distribute its material rewards in general accord with merit is fundamentally immoral. Examined in the light of this standard, modern capitalistic society rates low indeed. Anyone who enters one of the service professions must forswear any large claim to material reward. But even in the field of business, which deals with the production and distribution of material wealth, the claim that rewards are distributed in proportion to service cannot be maintained. In fact, there is abundant proof that our capitalistic society has pretty generally jettisoned the divine law of rewards. Years ago so conservative an economist as Professor Carver stated that there are three sources of individual income: earnings, findings, and stealings—and he at least intimated that most of the large fortunes did not come from the first of the three sources. This statement, made long before the fabulous twenties, and as a sly slur, has now become a matter of common knowledge, supported by documented statistics and sworn testimony.

Again the thing that concerns us is the responsibility of public education for the breakdown of the morality taught by the prophets of old. Have the schools distributed their rewards in proportion to merit? Have they attempted to inculcate the law of rewards?

On both counts involved in these questions, public education in America has a clear record. In general, education has distributed its rewards on merit. With few exceptions, credits, promotions, and diplomas of graduation have been earned. In my long experience as teacher and administrator I have known of only two or three cases of the counterfeiting of credits. I know of no precept that has been held more continuously before pupils and students than the one involved in the dictum, "You will get out of this world just what you put into it."

But the most tragic failure of public education in America—tragic because it has contributed to the decay of the whole structure of democracy—has been the failure to keep alive the spiritual ideals of the founding fathers. They had some very definite ideals of liberty and equality. Their ideals were

spiritual. The liberty coveted by Thomas Jefferson was the liberty to be, to express one's self, to become a fine personality. But the liberty coveted by the modern American is the freedom to do, to own property, and to use it without interference.

Public education in America needs to make a realistic appraisal of its successes and its failures. It is constantly asking for increased support. It will be entitled to, and will get, a much more generous share of the national income if and when it can demonstrate increased dividends in terms of the promotion of the public welfare.

IS EDUCATION A FAILURE?

(Extracts from the Presidential Address of the Educational Institute of Scotland).

With regard to the adoption of the so-called new methods of Education we Scottish people are not apt to accept a theory or a method just because it is new: we study it well before adopting it and generally we do not adopt but adapt it to suit our own special requirements. We are not so very susceptible to the power of advertisement: we prefer a natural growth to a complete change of method. It is the job of the "Scottish Council for Research in Education" to experiment and give us the benefit of their researches into methods of teaching and testing. It is not fair to the children we teach that they shall all be at the mercy of haphazard experiments merely in order that we may be considered up-to-date.

There are many definitions of the purpose of Education but I like that of a woman writer of the long ago who wrote that the true purpose of Education is to cherish and unfold the seed of immortality already sown within us; to develop to their fullest extent the capacities of every kind with which the God who made us has endowed us. Measured by this standard how does Education stand to-day?

The keys of learning are now available for all but how many use them to unlock the gates of wider and fuller Life? How many people are living full rich lives upto the limit of their individual capacities of mind, hand and heart, in spite of all the material and scientific progress that has been made? In the bustle and hurry of modern life are we not forgetting that "man's chief end is to glorify God and enjoy Him forever?" Is it not still pitifully true that there is "no room in the Inn"—the crowded inn of modern life—for worship, wonder and praise, and that in spite of the fact that scientific discovery has revealed more wonders than were ever before dreamt of in the universe? Are we cultivating our talents for the service of mankind and for joy to ourselves or merely such of them as will enable us to "get on" in this life?

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What do many of those who leave our schools to-day glorify? Speed, for its own sake and the vicarious thrill of seeing reckless men and women risk their lives to establish records that benefit

no one, save the manufacturers of machinery. A mechanical age has put a high-powered weapon in the hands of many whose lack of manners and regardlessness of human life make them a menace to children and aged folk. Hence we have been driven to adopt a motto alien to Scottish character—"Safety First." The advancement of science and progress in technology have so far outrun our spiritual development that they have become a danger to civilisation and possibly to continued existence. Power is being glorified in countries dominated by fear and the greatest scientific brains are devoted to perfecting systems of killing and annihilating instead of increasing the sum of human happiness by alleviating pain and banishing poverty and misery. In an age when the ceaseless toil for millions can be lifted by the power of guided machines, the machine seems to have so outrun our spiritual progress that it is perilously near to running away from the hands which should guide it and crushing out civilisation altogether.

What heroes does the average youth glorify? The benefactors of mankind? The pioneers in lonely outposts? Ah, no, they must take a back seat well behind the boxers, the professional footballers and the cinema stars. How many people to-day with no outstanding qualities of their own are content to be mere "fans"—appropriate designation—beating the air!

For this stressing of the trivial and magnifying of the unimportant, a section—the less reputable but all too large section—of the popular press is much to blame. Now that a vast population can read, they trade upon their limited knowledge, upon mass emotion and human weaknesses. The increase in daily betting is to some extent due to the prominence given to racing news and the ability to read has made it easier for many people to go to "the dogs" literally as well as metaphorically. In the slums of great cities the drink evil used to be responsible for much squalor and misery: to-day, as far as my observation goes, this daily betting robs more children of food and clothing than drink does.

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The Cinema, one of the greatest inventions of modern times, if rightly used, might be a splendid instrument of enlightenment and Education. Instead, it is to an alarming extent presenting to the eyes of masses of its patrons—amongst whom are many children and adolescents—patterns of vulgarity, vice and crime; the manners and morals of the under-world of Chicago; the glorification of crooks and gangsters; and to their ears a debased form of speech which is becoming common usage amongst the

youth of our country. We need consider box office appeal. Blame rather the fact that all our education is turning out masses of people who are satisfied with the fare provided, who find pleasure in vulgarity and know not the meaning of joy. The manager of one larger cinema told me that in his opinion the average mental age of his patrons did not exceed 12 years.

Again, modern transport facilities make it possible for all to get away sometimes from the din and dust of the city into the peace and beauty of the countryside. Only the few behold the beauty and appreciate the peace: the others desecrate the one with litter and shatter the other with canned music—pitiful people who have no inward resources and need a gramophone in the lonely hills; who are deaf to the music of the sea and the raptures of the birds.

In the streets where children play how seldom does one hear the sound of really happy laughter which is the spontaneous expression of joy and genuine fun.

Even in the theatre how often one is jarred by some who are incapable of appreciating tragedy and are moved to ribald laughter or foolish giggling where hushed silence would be fitting.

The craze for jaz might satisfy the standards of the jungle but in a civilised country is symptomatic of a people "out of tune with the Infinite."

Lack of reverence for God and man and a rapid decline of manners are everywhere apparent.

Intolerance and bigotry are again rearing their ugly heads in the land and are bringing into disrepute the fair fame of even this ancient city.

It is perhaps in the spending of leisure that the failure of Education is most apparent and most serious in view of the fact that there is, and will be, an increased amount of leisure, earned or enforced, at the disposal of an evergrowing number of people. There is much talk of the problem of the use of leisure—leading to a movement towards organised leisure. We should not need to have our leisure organised—the herd instinct is something to combat, not to encourage. It is the individual use of leisure that matters: thinking minds refuse to be dragooned into organisations, however praiseworthy in their purpose.

And why this failure? The schools cannot shoulder all the blame nor provide a complete remedy; neither can they avoid their share of responsibility.

First of the contributory factors is the decline of family life with a consequent lessening of character-training in the home. Parents are still willing to sacrifice much for the material welfare

of their children but few are equally ready to deny themselves for their spiritual welfare. The rush of modern life, where human beings with souls that need rest for refreshing flit hither and thither like gnats over stagnant pools, has caught even the children in its toils.

The life and environment of the pre-school child often has an injurious effect that all our years of schooling fail to neutralise. The public must realise that Education does not begin at 5: it begins in the cradle. My sympathies are with the parents who have to rear children under the conditions prevailing in city streets and even in country slums, and with the teachers who strive to counteract the effects of such environment.

Therefore the first remedy for the conditions which I have deplored lies in making adequate provision for the mental and spiritual health of the pre-school child. To achieve this we must have a spirit of co-operation and a scheme of co-ordination between the various social services—medical, public health, housing, town planning and transport—with Education.

Then we must speed up the good work of scrapping the lumber in the curriculum of the Primary School so that we may put first things first. There must be greater freedom in both Primary and Secondary Schools—freedom from fads and stunts: freedom from the blight of examinations which can be passed by mere cramming: freedom from niggling supervision.

The size of classes needs to be reduced to such an extent as will make the giving of individual attention a possibility and not an idle dream. The size of some of the schools too might be reduced with advantage. It is a sheer waste of ability and power to appoint a man of high character and fine personality to the headship of a school so big that he can neither know his pupils nor impress his personality upon them.

The tendency towards extreme specialisation needs to be curbed: the teacher must be greater than his subject and must have a reasonable change to influence as well as instruct his pupils. Let our teaching be less purely informational and more inspirational.

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The provisions for the continued education of the adolescent need to be co-ordinated and extended to embrace (in a compulsory scheme) all young people up to the age of 18, so that we may make an end of the wastage that now takes place when boys and girls leave school. Something has been done in adult education but still the vast mass of the population is left untouched. To reach them we must enlarge our conception of adult education

and provide a fare sufficiently varied to suit all types of mental digestion.

And through all the formative years of a child's life we must put patterns of beauty ever before the growing child and the adolescent so that ugliness of behaviour, of colour, shape or sound will be revolting to them. Let them feast their eyes on beautiful pictures, attune their ears to sweet music and the lyric loveliness of great poetry. Store their minds with treasures of literature which will abide with them right to the end of the road.

Abolish ugliness and crime in our schools—give us such amenities that the teaching of health and hygiene may have real meaning.

Get rid of ugliness of behaviour by holding ever before our children the example of the good and great who have gone before us, and above all of the Master Himself. Teach the beauty of holiness and feed the soul of the growing child on love and truth: he cannot live by bread alone—nor even upon surplus milk. We must see to it that he is not left to “feast upon futility.” Teach him to create lovely things. The value of occupational-therapy is now generally recognised as a healing agent in cases of nervous debility but there is less recognition of its value in the prevention of maladjustment. A movement towards the revival of crafts and skills and an increasing appreciation of the place of Art and Music in the curriculum are amongst the most hopeful signs I see in the world of Education today.

We teachers have a great—an almost overwhelming—responsibility which should be more and more emphasised in the Training Colleges. Our influence goes out to generations yet unborn. At best we are but frail lamps for the light we have to carry but as the erring old Scottish minister said, “It's no the lamp ye follow, but the licht.”

Let me remind you in closing of the famous saying of Lord Rosebery—“The success of the Scottish nation has always been based on character, and if the schools of the country fail to produce the character they did in old times, they have something yet wanting in their sphere of operations.”

—THE SCOTTISH EDUCATIONAL JOURNAL.

PLAY-WAY NOT THE WAY

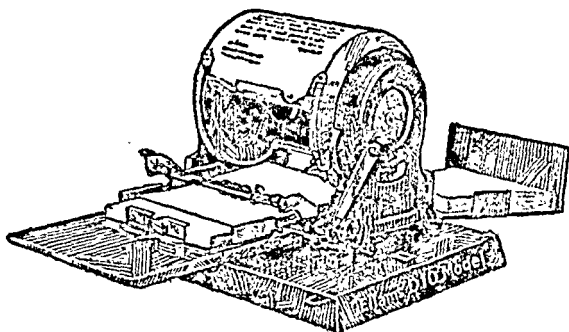
(An Extract from the Presidential Address of The National Association of Schoolmasters).

It is more important that we should train our scholars for work, since the living must be earned before it can be enjoyed. I am not going to urge Vocational Training; I hope we shall always oppose that. Nor am I going to agree with a recent suggestion that during the last year of school life the hours of school attendance should be extended so that they would approximate more nearly to those of industry. I am suggesting that there has been a swing of the pendulum towards a theory that all the hardness should be taken out of hard work; that we have made work in the schools too easy. In following that line of educational theory which says that the interest factor is the most important thing in lessons, it is as though we had cut all the crusts off the bread before we gave it to our children to eat, forgetting that the crust is a wholesome part of the meal, and that its chewing, is a very necessary exercise. Work for work's sake may sound dull, but there is more danger from a surfeit of strawberries and cream than from a surfeit of bread and butter. There is a good deal of plain, even dull, routine work attached to most ways of earning a living, and we shall have failed our children if we do not send them out into the world capable of tackling a job and of doing it thoroughly, however uninteresting it may be. I agree that it is difficult to become enthusiastic, watching a machine that turns out millions of articles all alike, or to get much aesthetic pleasure out of everlastingly tightening up what seems to be the same nut in the same piece of machinery. But there will be a finished piece of work at the end of it, and each contributor can take a pride in that. It is essentially a part of our task to give to our pupils a desire for accuracy, whether of calculation or of statement, so that they will never be satisfied with slipshod work or sloppy thinking. There is no man here who has not found that boys will take a real pride in turning out a well-done job when the effort is demanded. In the cult of the "play-way" we may have lost sight of this, and I think it is time we got back to the idea of work for work's sake.

Bound up with this is the question of discipline. Today, most schoolmasters are the friends of their boys, the captains of willing teams whose obedience is given, not forced, whose

discipline is increasingly a matter of self-control from within, rather than a control imposed from without. I am making no plea for, or defence of, that behaviour where licence has been mistaken for liberty, I would emphasise that control there must be, and an authoritative outside control sometimes, since the school must proceed about its business in an orderly fashion; since it is a workshop, and not merely a playground; since, in short, school is a preparation for life, and life is hedged with restrictions on individual liberty, so that there may be more liberty for all.

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- (2) To encourage scientific investigation in educational sphere and to stimulate statistical enquiries or those relating to experimental projects.
- (3) To consolidate a public of those who, finding it impossible to be indifferent about the educational drift of India, believe that a concern for the health of educational criticism is immediately relevant to the political and economic urgencies of the time.
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THE PROGRESS AND SPIRIT OF EDUCATION DURING THE RENAISSANCE

BY

DR. S. L. BHATIA, D.Sc.,
Government College, Ludhiana.

The Renaissance had its birth in Italy. The greatest impetus to this movement was given by Petrarch (1304—1374), Boccaccio (1313—1375) and later by Gasparino da Barzizza (1370—1431). A practical step towards the organisation of the movement was taken by the invitation extended to manual chrysoloras for the teaching of Greek in the University of Florence in 1397. The movement was enthusiastically welcomed by the Italians, who became deeply interested in the study of classical literature, and devoted their activities:

- (a) Towards search for older manuscripts and their distribution for the purposes of imparting education to masses;
- (b) Intense devotion to literary form;
- (c) Revival of classical taste in Architecture;
- (d) Development of painting and sculpture.

The most noteworthy feature of the Renaissance was the bringing to end the rigidity, the monasticism, and the ecclesiasticism of the Middle Ages, whose sole purpose was to adapt the individual to a fixed and particular system of Education. It aimed at asserting individual liberty, and at striking a death blow to Aristocracy and spirit of authority. It did not interfere with the doctrines of Christianity, but reinforced them by imparting basic principles of Christianity on the lines of classical literature, which, however, was not an end but simply a means of implanting ideas, of developing taste and acquiring knowledge.

For any movement to be really effective, it is very necessary that it should have the proper amount of official strength and support. Such was the case with the Renaissance movement. The city tyrants evinced great interest in the new spirit, and fostered humanism in order to add luster to their rule. The result of this official acknowledgement was that the movement

which was previously more or less informal, soon developed into a regular system so much so that schools were even established at the courts of the tyrants. The best known of these schools was that established by the Marquis of Mantua under the mastership of the famous humanistic scholar Vitterino da Feltre (1378—1446). The school was shaped, moulded and managed according to his explicit desires; and there was no interference of any kind from the Marquis himself. Vitterino was a man of independent spirits. He did not like the courtly life and its morals. This is evident from the reply which he gave to the Marquis on his receiving the appointment as the headmaster.

“I accept the appointment on this understanding only that you require from me nothing which shall be in any way unworthy of either of us, and I will continue to serve you as long as your own life shall command respect.”

The effect of this freedom of spirit on the part of the headmaster was very wholesome on the life of the Institution, and it really flourished very well, and enjoyed great prestige under his care. Vitterino aimed at imparting an all round good education, which was capable of producing a harmonious development of mind, body and morals. The course of instruction followed for the purpose was not narrow. It was very broad, and comprised a fairly large range of classical literature, along with which due care was taken to look after the physical development by the incorporation of proper physical exercises. Religious instructions on proper lines also formed a part and parcel of studies. The school course was not rigid but thoroughly elastic. It afforded a scope for the development of individual taste. The result of this sound system of Education was that in due course of time the court schools became so important that they supplemented the Universities, and students after receiving instruction at the court schools automatically migrated to the Universities, just as students in these days after finishing their school career jump at once into the college life.

From Italy the Renaissance movement went to France, Germany, England and other countries. Let us now follow the effect of the movement in these countries separately.

The effect of the Renaissance movement in France was that the Universities which were conservative before became wider in outlook, and produced several humanistic Educators.

Germany also embraced the new spirit, and the universities there established chairs of classics. One of the finest products of the humanistic studies in Germany was D. Erasmus (1467—1536). He exhibited remarkable ability in the New learning

when he was still a pupil at Deventer. After leaving Deventer, he furthered his knowledge of Latin and Greek in Paris. Being fully qualified, he made great contributions to humanism, and social reform, and believed in the purification of the society by the removal of ignorance rather than by a mere devotion of the church. His educational aim was a combination of piety, learning, morals and manners. He advises the use of stories, pictures and games, and object teaching rather than mere memory, and with a belief in such appeals to interest, he naturally feels that teaching by beating is not a liberal education, and the school-master should not indulge in too strong and too frequent language of blame.

In England, Humanism effected profound changes. The change was mainly brought about by the efforts of Humphrey, Duke of Gloucester. As a result of the enthusiasm shown by him, many native scholars gathered round him. Some of the younger humanists were invited to England from Italy, and thus the spirit of Renaissance was introduced in the country in its best form, with the result that a large number of first rate Grammar Schools with very firm foundations were founded in England. It is indeed remarkable to say that the English Grammar Schools have even up to this day maintained the tradition which were then laid. No doubt, slight modifications here and there have been effected, but the basic principles and essential features of the Schools are practically the same.

Below is given a list of the Public Schools with their dates of foundation. These great Public Schools were recognised by the Royal Commission headed by Lord Clarendon in 1864.

List of Public Schools in England.

Name of the School.	Founded in the year.
1. Winchester.	1387.
2. Eton.	1441.
3. St. Paul.	1509.
4. Strewsbury.	1551.
5. Westminster.	1560.
6. Rugby.	1567.
7. Harrow.	1571.
8. Merchant Taylors.	1575.
9. Charter House.	1609.

Inspite of the great success achieved by the Renaissance, it must, however, be frankly confessed, that the educational system as a whole had its limitations. This was, of course, natural as the ideal of the humanistic training was the so called liberal education of the ancient educators like that of Plato, Aristotle and Cicero. When that ideal was achieved, the Renaissance movement came to a standstill. The force with which it had started got consumed in the realisation of the ideal, and became static as soon as that ideal was accomplished. It reached a stage when some further dynamic force became necessary to continue the onward march of education.

IDOLS AND IDEALS IN EDUCATION

BY

SHEIKH IFTEKHAR RASOOL.

If one asks all parents today what it is that they most desire for their children, they are sure to answer much the same way. They do not desire wealth for them. There is too much responsibility attached to that, too many worries, too many heartaches. They do not desire fame. They are aware of its disappointments and discomforts. They do not crave power; its temptations are too great. There are certain things, however, which they do believe belong to their children as their birthright. For example, they hope that they may have the satisfaction of seeing them well educated, and to have the joy of a congenial home and happy companionship. They would further have them worthy participants in the welfare of their community and country. And these can all be attained through the elevation of character.

If we begin at the beginning, our first problem is Discipline, for that problem arises in infancy. Children assert themselves at the slightest provocation, clamorously and without restraint. They are, in short, unqualified egoists. A vigorous egoism is their sole instrument for securing survival. The object of education is to modify those passionate impulses and to adapt them to the needs of social life. That is the function of parents, a function which they too often neglect and cheerfully transfer to others.

Victorian disciplinarians pinned their faith to corporal punishment as a deterrent. This does not hold good to-day. Our ideal of human society is not a herd in which the majority enforce upon themselves and upon others a convenient and conventional standard of conduct, but a community in which each individual by the free development of his spirit moves as best as he can towards the absolute standards of human perfection. That puts it rather high perhaps, but anything else than that would be unworthy of our calling.

What then are the means by which we can assist our charges freely to develop each his own personality and at the same time to become a tolerable member of society? If all restraint is abolished, they will not develop freely, for their egoistic and passionate impulses will establish a tyranny too powerful to be broken by the later promptings of idealism.

It seems necessary somehow to teach the young the inevitable effects of certain causes. We cannot let them make the discovery for themselves by burning their hands in the fire or eating themselves into chronic dyspepsia. Instead of that we must devise some fictitious inconvenience and associate it with certain actions which would, if unchecked, produce disastrous results; and this inconvenience must be some form of punishment, definitely unpleasant but not disastrous. Of all available forms of punishment the kindest for the very young is what the psychologists would probably call 'somatic correctivity.' In plainer language, babies—like puppies—should be slapped. They expect it; it is their due; it acts as a deterrent and has the advantage of 'wiping out' the offence. And with young children that is clearly desirable. But even in dealing with their tenderest years, the disciplinarian must remember that, while his immediate object is to deter the action, his ultimate, more important object is to train the will. As children grow older, punishment becomes less effective and is indeed certain to defeat its object if the victim learns only to fear misdeeds and not to dislike them for his own sake. Our job is to show him that he really does dislike them, so that he comes to avoid wrong doing at the promoting of his own free nature. And that of course is a difficult job, much more difficult than the method of mere deterrence. It requires understanding, sympathy, example and a command of clear and simple argument.

Development of Character.

The principles which guide us in aiding the development of character must be operative also in the classroom. There too our aim is not coercion but release, to set free and to keep alert the child's capacity for wonder. To forget that capacity and stunt it would be treachery to our trust. In teaching, as in controlling conduct, the Victorian way was simpler. The method of the martinet was once an 'idol' of the school world. It is not difficult to keep a class of children 'out of mischief,' to set a lesson and insist on verbal reproduction. It is far harder to keep a class, as it should be kept, in a sort of turmoil of curiosity, and at the same time to hold their attention concentrated and to avoid the characteristics of a bear-garden. Pupils must be kept active yet under control; they must exercise their own free interest yet acquire the capacity of steady 'grind.' In those antinomies lie all the major problems of the class-room. And the key to their solution is, I think, that conception of discipline which I have

tried to explain. Discipline in the class-room is not an end in itself but a means of aiding the pupil to realise his capacity and appreciate for himself the value of truth and beauty.

If we bear in mind that the object of all education is to release in each pupil his vital and characteristic activities, to help him to develop into the best kind of human being that it is possible for him to be—and of course that should be—it becomes easier to view some modern educational difficulties in true perspective. There is for instance the problem of vocational training. Up to fifty years ago higher education was aristocratic or rather oligocratic. It was the privilege of the few. These came all from the same sort of home and entered the same sort of profession. Therefore, the same sort of curriculum was considered suitable for them all. And in the circumstances of those days it was suitable, and sufficient. Education is now nation-wide, as it assuredly should be. The children in the schools differ very widely indeed in the background, status and prosperity of their home life. Their capacities are more varied and therefore their needs are more varied also. And for those needs we have to cater. How comprehensive must we make our bill of fare? Obviously it must suit all palates. Every child must find the mental food which it can best assimilate. Science must be there and languages, history and geography no longer confined to the 'classical' work and plenty of scope for hard-work and artistic self-expression. The aim of education in all schools is exactly the same; it is exactly the same whether the means employed are books of poetry or tools and lathes—and that common aim is the growth of intelligence and character. If that aim is achieved, the pupil will be able in real sense to use what he has acquired at school, and he will leave school fitted not only to earn his living but also to achieve his own life. It needs little reflection to understand that for every trade and every profession brains and character are the prime requisites, and that the best candidates for employment are not those who have been drilled in some manual dexterity that will command a wage, but those who have acquired the art of self-discipline and retained their capacity for wonder.

Idols and Ideals.

Of all the 'idols' that confuse the thought of teachers in education the grimmest is that ogre known by the name of examinations, which with ever-increasing denomination hampers teachers in the task of assisting their pupils to develop a spontaneous and disinterested mental activity. For the activity

induced by examinations is neither spontaneous nor disinterested. Its cult degrades both teacher and pupil. Every genuine teacher values truth supremely and infects his pupils with his own conviction of the value of pursuing truth for its own sake. But examinations conducted by an outside body demand from each candidate the appearance not the reality of knowledge; they invite him to repeat what he has read and heard instead of finding the truth for himself; and although by encouraging industry they may sometimes awaken interest, yet they inflict a real moral damage by suggesting a false standard of values, as if that search for truth which is the great adventure of education were only valuable for its rewards. Of those of the pupils who do well in examinations, we can only say, 'verily they have their reward.' But a lot of souls are lost in the process.

The cult of examinations as if they were supremely important in school life not only thus reflects the aim of education, it only lowers the standard. Examinations are meant to be a hall-mark of mental activity. They can never be that, because most examinations directly discourage mental activity, and encourage rather cunning and a peculiarly costive form of cram. Say then that they are a hall-mark of information obtained, stored and delivered. Every child desires that hall-mark or rather the parents desire it for each child. And therefore two things happen, the standard steadily descends and candidates industriously cultivate skill in answering the maximum of questions on the minimum of knowledge—and that minimum of knowledge, acquired as it is under the threat and pressure of examination, fades from the memory as soon as the pressure is withdrawn. That is no exaggeration. The value of education lies in the pupil's own activity, industriously exercised and sustained over a prolonged course. To skim the activity and yet pass the examination is to lose the whole value. There are no short cuts in Education. We all know that. And yet the value set upon examinations has so confused the pupils—and their parents—that they mistake the means for the end, and it is true to say that there are many at school and university who will not work hard at any subject without the stimulus of some examination. That simply means working with a motive which defeats the end of education—that spontaneous and disinterested mental activity which I have explained already.

Education in the last analysis depends on the free interplay of mind and character between teacher and pupil. A teacher is useless unless he is himself. An educational system which cramps teachers into a mould and uses them as gramophone

records is a contradiction in terms. Primeval chaos would be better.

The freedom which I have ventured to uphold as a necessary condition of education is as necessary for a University as for a school. What we really require of those who enter a University is not evidence that they have passed certain courses or legibly inscribed the right answers to certain well anticipated questions, but evidence of a catholic curiosity, evidence that their faculty of wonder is not yet finally extinct. It is on the vigour and intelligence of the Schools that the solution of University problems depends. There are no clear breaks in Education. We are all bound together in the same great interests from the teachers of infants, who bear perhaps the heaviest burden of responsibility, right down to University principals at the bottom of the scale, mere executive drudges who don't do any teaching at all.

BRIDGING THE GAP BETWEEN SECONDARY SCHOOL AND COLLEGE METHODS OF STUDY

BY

DORIS HOLT FLINTON

Secondary school teachers and principals are frequently nonplussed to hear of the mediocre records made by their most brilliant former students during the freshman year at college. Often the young people say they have no time for anything but study either. The frequent criticism of such students by the college is that they have immature study habits, that they have never learned to concentrate, or that they spend too much time in studying with too little result. Several leading Eastern colleges, both men's and women's, have given the following reasons for freshman failures: "Students spend much needless time on study without seeing the relation between ideas;" "They do not read rapidly enough and they cannot apportion time;" "Coasting in the first two or three weeks is the besetting sin;" "They do not budget time, get enough sleep, or get their personal difficulties straightened out soon enough;" "They cannot express their ideas clearly, marshal their ideas neatly and in an orderly fashion in a brief amount of time;" "They show an inability to take intelligent notes in a lecture course, an inability to read rapidly and take intelligent notes on the text, an inability to discriminate between the important and unimportant in reading, and an inability to proportion their time." All these criticisms were accompanied by the general complaint that the students did not read "intelligently." That word implies many things, among them natural ability and training.

If these complaints are justifiable, are they aimed at wrong study habits in the secondary school or at different study habits there? From the very nature of the different purposes of the average secondary school and the average college different study habits must be formed. In the small high school often only a small percentage of the pupils are going to college; there is no time to give them special attention; their time outside of school is often occupied with doing extra reading or problems that the rest of the class do not need; there may be no teacher with the time or desire to train pupils in study methods. In the larger high schools,

where whole divisions are composed of college preparatory students, a little better preparation for college study is available, but even there, the large classes, the lack of time and opportunity for individual instruction are serious handicaps. Even in many good preparatory schools where there are supervised study hours, no formal training in study methods is given, and often the students become too dependent upon faculty supervision. The factors that make college study hazardous are missing in high and preparatory school. In the secondary school lessons are learned from day to day, a daily or weekly accounting is held, and the pupil gets his assignments in small doses often unrelated to each other. Home influence and parental discipline are still active and tend to keep the boy or girl up to the mark. But most important of all, the philosophy of education in these schools emphasizes memorization of material, rather than a steadily increasing ability to think and reason about the material learned.

Can anything be done to help the student to prepare himself for the different study habits essential to successful adjustment to college routine? There are several possible answers to this question. If, from the first grade on, the main aim of teachers were to guide the pupil in the process of cultivating his ability to reason, judge, compare and conclude rather than simply to memorize and reproduce facts on examination papers, the student would need no extra preparation for college work. If the colleges offered a short intensive course in study habits for a freshman at the beginning of the year that would help. If there were opportunity during the senior year at secondary school for a small class in study methods, using the material of the courses being studied at the time for a basis, and given by a teacher who can keep in close touch with the work that the student does in all his classes, that plan should work out very well. If none of these conditions exist, the summer vacation after graduation and before entering college is the best time for the student to prepare himself. Then an intensive course given privately or in a summer school might help. The work should be almost entirely individual and based absolutely on *doing*, that is, having the student make automatic certain valuable study habits.

This latter plan is the one which the writer worked out last summer at her husband's summer tutoring school. The course was intended to try to meet the demands from various colleges and to adjust differences between the methods of study in average high or preparatory school and in the average liberal arts college. Thirty hours of instruction in methods were given and the student spent many more hours on perfecting himself in the ways

recommended. With such a short period of trial, of course, this means of trying to help future freshmen has not proved itself, but a brief summary of its aims and experimental contents is offered here which other teachers may think it worth while to try and to improve.

The fundamental differences in the college time schedule and study arrangements, as well as the amount of work to be done and the attitude toward this work had to be the basis for the treatment of the subject. The course took as its objective the fact that "the function of a college is to furnish the student an environment favorable to the development of wholesome attitudes towards intellectual tasks and of advantageous habits of mental work," and tried to prepare the student to fit himself into such an environment. It tried to inculcate some of these "habits" and to make them so mechanical as to lessen work for the individual.

The course aimed to develop the best habits of study in the real sense of the word "study." Studying involves and demands various steps which are not all taught in the secondary school of today. It demands: first, the desire to learn something; second, the physical ability and surroundings to make study possible; third, the knowledge of sources, an acquaintance with reference books and with library facilities; fourth, the ability to apply the mind, to concentrate on the material at hand, to read understandingly, to remember; fifth, the discipline necessary to make the material studied carry over—to make notes carefully and usefully; sixth, the digestive process—mulling over, thinking, reasoning, comparing, concluding; and seventh, the ability to make use of the material learned immediately in an exam or later in life. With these aims in mind, the course was divided into sections with enough related and supervised and unsupervised drill to develop the desired mental habits.

Physical and mental fitness formed the basis of one section with individual problems stressed. This included not only health habits but also personality traits, open mindedness, diversity of interests, and emotional states. Then came a section on investing time at college, making out a daily schedule, at least at first, judging how much time should be given to any one aspect of college life, the best time to study in preparation for a discussion and for review of the discussion or lecture, the best time to prepare for an examination, to make notes, to revise them, and to do outside reading. Here also was kept in mind the great difference between the amount of material to be covered in a college course and the amount to be covered in the same time in high school.

These facts, that the student is on his own, and that there is much more work to be done in a short time, make it very apparent that a time schedule will help a great deal and will be a worth-while device.

The ability to read intelligently is a matter of native endowment plus training. The improvement of the reading ability of the average high school student may be accomplished by correcting whatever individual reading deficiency he may have—lack of speed, understanding, concentrating, reasoning, judging, comprehending or remembering. The book of Miss Carol Hovious called "Following Printed Trails" was very helpful in providing drill for this type of thought process. Passages from books of various types, literature, philosophy, history, and science, were studied and estimations of what was important and what was subordinate were made. There was a great deal of practice on this with exercises in reasoning, logic, and comparing particularly. Then, after a decent facility with this sort of thing was attained, methods of making notes, both reading and lecture notes, were practiced. The various ways of keeping a notebook were compared and the one way which suited the individual student best decided upon. Here the student spent much time on practising note-taking and reviewing under the teacher's direction until he saw what and how much was important to remember. A preliminary test of the knowledge of standard guide and reference books used in college libraries showed just how much the student needed help in that direction. A trip to a nearby college library or to the library of the intended college or even to the local town or city library might be helpful. The student was encouraged to keep a list of the standard references at hand to help him until they became habitual to him. It was also important to put the student through the paces of writing a theme, advising him on the amount of time to spend, how to choose a subject, how to get material on the subject, how to organize the material, judging the unity and coherence of the theme, and the value of typewriting the whole.

The particular dangers in writing examinations were taken up also, mental attitudes, time for preparation, coöperative study groups, and then the actual taking of the examination, using judgment in choice of questions, distinguishing between questions of simple information and questions of performance which presuppose information. The common faults of saying too much or not enough, of not answering the question asked, may all be eliminated by wise selection of drill and careful discussion

between teacher and pupil in the light of what has been learned and practised in the reading section.

Other individual questions and problems come up during the course. However the course should be flexible enough to allow for adjustment of these difficulties without disrupting the schedule, for whatever eases the mind or clears up difficulties for the student before he gets to college will mean just so much less distress to be encountered by him later. No doubt other topics may be considered important enough by experienced teachers to be included in this course. The writer offers this merely as a general outline from which teachers may formulate a similar course to bridge the gap in methods of study which of necessity exist between secondary school and college.

—EDUCATION, BOSTON.

THE RELIABILITY OF THE PRIMARY CERTIFICATE EXAMINATION IN C. P.

BY

REV. E. W. MENZEL, M.A., B.D.,

Bisrampur, C. P.

In India a public examination is indeed a major crisis in the school life of a boy or girl. Its results continue to influence the students for weal and woe long after he has left school. The student is naturally nervous at the time of such an examination for he knows a great deal depends upon the results of the next few hours. If he realized how terribly much is at stake he would be even far more nervous than he is.

His success or failure in even such an elementary examination as that for the primary certificate may make the difference to him of continuing schooling or dropping out of school altogether, of going on to new school experiences or sitting for a whole year and trying the old threadbare stunts over again, of going through life buoyed up by the thought that he succeeded fairly well with the only opportunity he had at schooling or going through life feeling he was a failure as far as scholastic education is concerned. There are likely to be economic, social, and personality developmental effects. The reputation of pupil, teacher, school, and the prestige of education in general, in that community, is at stake, in that examination. There is no more important examination in the Central Provinces than the primary certificate examination for no other affects critically nearly as many people.

With such odds at stake there is need for fairness and reliability in the examination. No matter how honestly and well-intentioned an examination may be conducted, if it is not reliable, that is, distinguishes between those who really deserve to pass and those who deserve to fail, according to a consistent uniform standard, it decides the fates of thousands haphazardly and is therefore unfair.

Of course no examination is 100 per cent fair. The human element is present in every scholastic examination and the human element defies exact standardization. There always will remain some element of chance and misjudgement in any method of evaluating human abilities, but this element of chance and error

must be reduced as much as possible, and is kept much lower in some systems of examination than in others.

The Indian examination system has been subject to very little check-up on reliability. The only experimentally critical check known to the writer is one by Mr. Kuppuswami Aiyangar and deals mainly with the unreliability of examiners. The recent "Examination of Examinations" in England by Sir Phillip Hartog and Dr. E. C. Rhodes has provoked considerable discussion both in England and India. This investigation revealed very considerable differences in the grading of the same paper by various trained examiners. In America similar investigations have led to sweeping reform in the way of testing that amounts to a new science of testing, in which educators and psychologists over the world have taken part.

In the experiment described in these pages, the writer sought to find out how consistently the primary certificate examination picks out the same pupil for the honour of passing or degradation of failing. Only arithmetic tests were given. Arithmetic happens to be the subject which causes most failures. It also happens that arithmetic is the one subject in which the marking is most nearly standard. Since the answer to a given problem is either right or wrong and there is not the probability that widely different marks would be assigned to the same paper by different inspecting officers like in the case of language and geography, Arithmetic gives the best chance of study because the evaluation of papers is more uniform.

Five schools were selected for the experiment, each boasting a class of from 20 to 30 candidates for the primary certificate. Three of the schools were urban and two were rural. Each of these schools was given 5 bona fide arithmetic examinations (the same in each school) which 4 different deputy inspectors had given, in some school or other not included in the experiment, for the awarding of the primary certificate not less than two weeks before this experiment was begun. The actual primary certificate examination in each school of the experiment given by the inspecting officer made the sixth test for all schools. This primary certificate examination was different in every school but the other 5 tests were the same in each school.

Inspecting officers have strict rules as to what to include in the examinations. They are supposed to give three concrete problems in interest, profit and loss, rule of three, fractions, practice, or billing, one problem in "rokar," and several short concrete problems to be done mentally. The several mental problems usually count as much as one slate problem. The

number of marks ascribed to each problem is fairly uniform. Many of the inspecting officers choose the problems from some sanctioned text-book but some of them make up their own. 33 per cent of the work correct is considered passing.

The first question we sought to answer was whether all examinations appear to be equally hard to pupils. The various examinations were designated as A, B, C, D, and E. The average score made on each test and the number of failures in each test is given in Table I.

TABLE I

	Test A	Test B	Test C	Test D	Test E
Average Score	.. 27.6	16.5	24.8	20.3	26
No. of Failures	.. 33	58	42	38	39
Percentage of failures	24	43	31	28	31

(Total marks possible 50, Pass marks 17.)

In tests C, D, and E the number of failures is fairly uniform. Those who received test A in their primary certificate examination were the luckiest pupils. Those who received test B were the unluckiest. 19 per cent more were failed on the one than the other. These two tests had been given by the same deputy inspector. This is the only case in the experiment in which two tests by the same deputy inspector were given. It was done in this case because the teachers of the one school claimed that their school had been discriminated against by a harder examination. There was some justification for their complaint though not as much as they thought there was. The discrimination may be assumed to be accidental rather than intentional.

The five examinations were given in a different rotation in each school so that each examination was the first one given in one of the five schools, the second one to be given in another school, and third, fourth and fifth in some school or other. By this the effect of practice in taking the examinations was equally distributed thus giving more reliability.

Three of these tests (A, C, and D) were given to 70 pupils of class V which is a class higher than the class for which the primary certificate examination is intended. All of these pupils had received the primary certificate a year or two before. Their score on the three tests was 10 per cent lower than the score of the fourth class pupils. This is the fourth time the writer has tried middle school pupils on primary certificate examinations and found them inferior to fourth class pupils, in one case seventh

class pupils being no better. This shows how much of that required in the primary certificate examination is of rather temporary value and was mastered in the cram style for duration of the examination days.

The name of each pupil in the class 4 groups was then recorded with his or her score in not only the five tests above enumerated but also the official primary certificate examination given by the deputy inspector. The pupils were classified according to the number of unofficial tests they passed. The fact was noted as to whether they passed the primary certificate examination or not. Table II gives us the results of the classification.

TABLE II

No. of unofficial tests passed.	5	4	3	2	1	0
No. of pupils who passed this number of tests ..	37	27	18	17	11	10
How many of these passed the Primary cert. examination ..	21	6	4	9	0	1
Percentage who passed the Primary cert. examination ..	57	22	22	53	0	10

The results are surprising, to say the least. If the primary certificate tests were at all reliable in picking out those who should fail or pass, a great majority should either pass all the examinations or fail at all the examinations. Only 39 per cent either passed all or failed at all the unofficial examinations. If we include the official one, then only 31 per cent failed at all or passed all. For the rest of the pupils, success was a matter of chance depending on which of the six tests they would have to face. Of those who passed all 5 unofficial tests (these tests had been given as the official ones in some other schools) only 57 per cent earned their certificate in arithmetic. Of those who passed 3 or 4 tests, 22 per cent became fourth class passes unless they failed in some other subject. But of those who could pass only 2 out of 5, 53 per cent, got the coveted prize. They did almost as well as those who got 5 right and two and a half times as well as those who got 3 and 4 right. Those who passed only one got what they deserved. But one of those who passed in not a single preliminary test had his luck turn at last thus bringing the percentage of passes of the 5 fail group to almost half of that of the one fail group.

It is to be noted that the results on the whole on the official tests was much lower than in the unofficial.* This may be due to the fact that the 5 unofficial tests were much easier than the five official ones. It is improbable that the difference in difficulty was enough to explain the very marked difference in scores. It is also possible that cheating by pupils and teachers took place more in the unofficial examinations than in the official. The writer feels tolerably certain that this was not the case, certainly not to a large enough extent to furnish the explanation. There is another explanation that looks more plausible, namely, that of the effect of examination fright. The pupils knew that nothing depended on the unofficial tests whereas much depended on the official ones. The stage setting was entirely different, especially so in two schools where the pupils had been brought together to a central place which was badly overcrowded and the atmosphere generally was one of hurriedness and confusion even though no longer time was given in the unofficial tests.

The most reliable score obtainable for each pupil is obviously his average score for all tests. So the average score for each pupil on the 5 tests was calculated and compared with the results in the primary certificate examination.

TABLE III

The Average Score on 5 Examinations compared with Success in the Primary Cert. Examination.

Average Score in 5 exams.	0—5	6—10	11—15	16—20	21—25	26—30	31—35	36—40	41—45
No. of pupils	6	13	21	14	32	19	27	8	0
No. who passed	0	1	7	3	12	8	12	4	0
Per cent who passed	0	7	33	21	36	42	44	50	0

We find that those who got only from 11 to 15 marks out of 50 were able to succeed in 33 per cent of the cases in the primary certificate examination while those who scored 31—35 out of 50 bettered their chance of passing with a bare 44 per cent of the cases even though they had an average score almost three times as large as the former. With the exception of those who dismally

* This happens to be one of those unfortunate years in which the slaughter in the Primary Certificate Examination in the ranges concerned was unusually heavy in all schools.

failed in the 5 tests there is hardly any relationship between a good average score in all tests and success in getting the certificate.

The term usually used in educational and psychological circles to denote the relationship between two abilities and traits is that of the coefficient of correlation. This is also the mathematical expression of the reliability of a test or of the comparison of two tests. This figure is arrived at by rather intricate mathematical treatment and denotes the extent to which, in the case of tests, the pupils tested on one test will occupy the same relative standing as when tested by the other test. A comparison of this type is regarded in scientific circles as an exacting and accurate comparison when properly controlled and interpreted. The correlation of test A with test B was .30, with test E, .48. The average correlation for any two of several tests was .40. This indicates a correlation of one arithmetic test used in the primary certificate examinations with another that is expected to examine the same thing, so low that you cannot predict what the pupil should get on one primary certificate test by what he can do on other similar tests. In fact the correlation between a certain two of these tests was only slightly higher than the correlation between ability to learn arithmetic and swimming. Two really reliable tests that claim to fulfill the same purpose are supposed to have a correlation of .75 to .95. In the case of the 60 per cent of the students who are neither the very best nor the very worst, giving sample preliminary tests of the primary certificate examination type affords exceedingly little indication of who will be successful in the final test and who will not.

One likes to encourage pupils by telling them if they work hard they stand a good chance of passing. But the truth of the matter is that "luck" is as important as work. All that good teaching can do, for many of the pupils, is to put them in a position where fickle fortune gives them a 60—40 chance.

The correlation between the average score on the 5 tests and the various separate tests averages .65, which is not so bad. The average score is the result of 5 tests, or, we might say, a test 5 times the usual length. This relatively much higher correlation of each test with the average mark than with the other tests separately, indicates that the present type of test is entirely too short to measure reliably the kinds of ability it tries to measure. This type of test is not at all well fitted to test what it tries to test. It is clumsy and its aim is beside the mark. Modern testing methods get at the same thing much more swiftly, easily, and reliably.

To lengthen the present type of test enough to make it possibly reliable would take a test of six or seven hours which is impractical. A good modernized test could reveal more, and do so with far less an element of mere chance, in an hour.

Supposing the pupil has successfully passed the arithmetic examination. Still Dame Fortune will have to be kind to him if he is to have his certificate, for there are also tests in language, geography, etc., bad luck in any of which throws him off the path of success. It is not known if these also contain as great an element of chance. These additional tests will probably help to weed out the weak pupil who passed arithmetic more by "luck" than by his ability, and put him into his proper place, but they cannot put back into the examiners' good grace the unfortunate one on whom Dame Fortune frowned in the arithmetic hour. Such an unfortunate one can only give up his ambition to go to middle school, or take through again the monotonous grind which a cud-chewing creature like the cow may enjoy but which is not calculated to stimulate a lively interested child. At any rate, the child gets the stigma of failure, whether he deserved it or not.

It is not entirely beside the point to ask whether the material the fourth class child is required to attempt to master in arithmetic is fitting for a child of his tender age. The recognized text books in arithmetic contain problems which can cause half the adults who finished middle school to stumble and many who are in High Schools.

Only concrete problems are contained in the examination. Psychologists claim that concrete problems are not only a matter of teaching but indicate a certain kind of innate intelligence which one can develop only to a very limited degree. Any pupil who has not this innate special type of intelligence (he may get it of himself when he gets older regardless of what is or is not taught him) is decidedly handicapped in the primary certificate examination. In this connection the writer wishes to quote from "The Testing of Intelligence" by H. R. Hamley of the University of London Institute of Education (page 105):

"It should be realised that problem solving is a most complex process, progress in which is for all children a matter of constant practice with stereotyped examples, each characterised by its respective clues and catchwords. The difficulty arises from two factors: firstly, that potential ability to solve problems depends mainly on general intelligence, hence any degree of mental dullness produces weakness in problem arithmetic; and secondly, that this

potential ability is only realised if there is efficiency in acquired processes such as reading, comprehension and computation: Thus the essentials in problem solving might be enumerated as: (1) Intelligent reading of the problem, (2) Technique of attack: analysing and arranging data; (3) Seeing relationships between the data; (4) Seeing an analogy with similar problems, (5) Accurate computation; (6) Approximate checking of the result.

... Techniques for teaching solution of problems are not as effective as they might be, certainly the objectives are not as clear as those in other branches of arithmetic teaching. For example, the amount of transfer on types of problems has not been finally determined, so that the class teacher is unable to decide whether he should try to cover a large number of problem types or whether he should teach a few types very thoroughly and expect a transfer of ability."

How little the problems of the primary certificate examination have to do with computational ability in arithmetic can be seen from the fact that there was a correlation of only .28 between the primary certificate results and results on the computational part of a standardized arithmetic test. This standardized test is modelled after the famous Stanford arithmetic tests, and tests in a comprehensive way practically all the computational work given in the primary school from classes 1 to 4, practically all of which work is required in the work of the fourth year course. The average score on the five tests had almost identically the same correlation (.27). The correlation between the primary certificate test and the standardized test on arithmetic reasoning (ability to reason out new problems rather than to repeat in stereotype fashion what has been drilled in by the teacher) was only .32. The ability to reason is not as easy to isolate as the ability to compute so the latter comparison is probably not as valid as that with computation, but it is nevertheless valid enough to raise the accusation against the primary certificate test in arithmetic that it gives indication of the pupil's ability either to do computation or arithmetic reasoning which is very unreliable. Just what abilities the primary certificate test in arithmetic does require we cannot for certain say, but a correlation test of this sort reveals that it is not what it is supposed to be, namely, real arithmetical ability. This is indeed a joke on the alleged

arithmetic test that it is two thirds something quite different than arithmetic. It is rather a cruel joke, however, at the expense of teacher and pupil. What the primary certificate examination does measure to a considerable extent, in addition to a limited amount of arithmetical ability and excluding mere chance elements, is probably a mixture of language ability, memory in repeating stereotype forms, ability to cram, ability not to get overnervous, and the ability of the teacher to anticipate and drill in exactly those things which are most likely to come in the test.

The examining officers are only partly to be blamed for the state of affairs. Some of them are not to be blamed at all. They have their strict orders on what kind of examination to conduct and have to carry these out in strict detail. However, they undoubtedly have a great deal of leeway in choosing hard or easy problems. When one deputy inspector passes less than 40 per cent of the pupils in his range while another passes 70 per cent, it is quite evident that the difference is more in the examiner than in the range, especially since the same difference is found when one officer succeeds another in the same range. The fluctuation of the percentage of passes from year to year is more likely to be due to examination differences than that the work of thousands of teachers and twenty thousands of pupils is so erratic. But still, the examining officer is caught in a net of rules and traditions that puts the actual blame on the system and not on the officer for what much can an officer do within the system as it is.

There is probably not a harder working government official than the much overworked deputy inspectors whose desire for experiment and aiding the teacher in his teaching problems is checked because of the mass of routine he must attend to.

CONCLUSIONS

Mr. Kuppuswamy Aiyangar says, in his investigation into the reliability of marking by various examiners, "The various marks are so distributed that one would not probably get a different set of marks if each examiner was allowed to draw lots for his marks, *i.e.*, to pick out his marks from an urn containing all possible marks."

By using only mathematics questions in which the answer is either right or wrong we eliminated much of the unreliability due to different marking standards but it is still rather evident that:

- (1) What a pupil does in one primary certificate arithmetic paper gives very little indication of

what he will do in another paper. The opportunity of passing the examination depends very much on just which questions were set before him.

- (2) There are rather few pupils who either pass all or fail all of several primary certificate examinations. The greater majority will pass in some and fail in others. Hence the division between passes and failures is largely an artificial one. If we eliminate the 20 per cent best students and 20 per cent weakest students, teachers of middle schools might almost as well pick the failures in the primary certificate examination as the successful ones as far as ability to do the arithmetic work in class 5 is indicated by the primary certificate.
- (3) The element of chance is so great that much injustice is done and the claim that the present examination maintains a high standard is not to be taken seriously.
- (4) The quality and objective of the primary certificate examination needs to be revised in the light of progressive educational practice.
- (5) There is good reason to believe that examination fright materially effects performance.
- (6) The correlation of the primary certificate arithmetic test with computation ability and perhaps also with arithmetic reasoning ability is so low as to suggest that the primary certificate test is only 30 per cent a bona fide arithmetic test and 70 per cent either chance or a test of other ill-defined traits and abilities many of which are of questionable value.

SUGGESTIONS FOR SOME NEEDED EXPERIMENTS BY THE DEPARTMENT OF EDUCATION.

There is a bit of information which the Department of Education could easily supply which would shed a great deal of light on the "chance" element. Let the Department study the records of the number of pupils various deputy inspectors and inspectresses have failed and passed in the last ten years. It would probably be found that the deputy inspector has it within his power to affect the fate of a good percentage of these he examines simply by his interpretation of what is a fair or unfair

examination under the present rules which, though ironclad as to detail in some respects, give little indication of grade of difficulty. The term "easy problem" is left entirely to the deputy inspector to interpret. In some cases this seems to be interpreted "easy for a school child," and in some cases, "easy for a mathematician." If the Department will examine the questions given by various deputy inspectors they will find a considerable number that are decidedly outside the scope of the printed syllabus. The questions will probably be found in some sanctioned text-book but the committee which sanctioned the text-books paid little attention to whether the contents of the book are within the syllabus.

The result of this investigation can easily be verified or disproven by the Department of Education if it will assign 5 inspecting officers each of whom should examine the pupils of 10 schools in all subjects according to his usual way of examining. The result of each officer should be entirely secret until all examinations are over. A careful statistical comparison of the results of the various examinations in the case of each child will soon reveal how reliable our primary certificate examination is.

CORRESPONDENCE

A Letter to Educationists.

DEAR SIR,

There's much uncertainty in the realm of Secondary Education. Many experiments are being tried. The lawyer, the politician, the layman, each has a panacea. But the secondary school teacher has not been consulted; he has not been asked. His expert opinions have not been sought. And these, unlike British experts, would have cost the tax-payer nothing. Derision awaits the bold teacher who dares to speak on Vocational Education. But, still—

In the enclosed syllabus the only optionals are items 1 and 2. (Items 3, 4, 5 and 6 are compulsory). A judicious selection by the High Schools of the alternative subjects need not cost them more than the pay of one or two specially trained teachers. These specialists, when engaged, must be well paid; for, that which essays to begin with a missionary spirit in the first generation, may degrade into a worst mercenary spirit in the second generation.

The enclosed vocational syllabus is, advisedly, more theoretical than practical. Practical work needs *Technical schools with a systematised syllabus of manual work*. Such schools must be provided by every city which has a Municipality. Nor need the Municipal Panchayats worry over their maintenance. I suggest that in the cities every professional, man or woman, take out a licence for engaging in his or her profession; every shop-keeper take out a licence for the commodity he advertises to sell. The pedlar, the hawker, the footpath-encroaching vendor of varieties must not be made exceptions. Every owner of a house, who keeps his house proudly shut against the faces of needy tenants, preferring the house shut to being occupied, and thereby, lets filth and dust accumulate to germinate microbes endangering public health, should take out a licence which should be for a specified period only. After this time-limit he should either live in it himself or let it out to tenants. A hundred other ways and means of taxation are open to the city-fathers. But the income, thus derived, must be earmarked for *technical education* only and not appropriated to the 'head' of education. A separate committee in which the members must be different from the members of the Municipal Education Committee, should work the income. These members should be invited from the outside and should not be drawn from the elected members of the Board. Together with the tuition fees this additional income from taxes should be enough to provide suitable technical institutions and public laboratories for practical training.

For the first three years, for want of suitable books in the Vernaculars, the alternative subjects in the enclosed syllabus will have to be taught from books written in English. A board of eminent educationists for each district should be appointed by the *Provincial Legislative Assembly*. The members of this board will review books from authors and publishers and for their work the members must be paid a fixed honorarium. This honorarium, i.e., *the money for it*, will have to be found by the District Boards. It can easily be done. *The security deposits*, paid in by those seeking elections to the District Boards, will, *if charged as fees and not as*

deposits, be enough to pay out the honorarium of the members of such a board.

In the group of compulsory subjects I have made Hindi and Urdu alternatives and have also made it necessary for the Urdu students to learn well to write Hindi and *vice-versa*. My excuse is that in the United Provinces the two Vernaculars cannot afford to ignore each other. Ignorance will be harmful to sympathy, and, factions, we all know, retard provincial progress.

Some subjects are better made extra curricular and hence I have omitted 'Manual Training' from my scheme. Wood work, with basket-making, deal-box making, rope-twisting, and so on, should be developed as hobbies by every school; so that, in time, they may become the source of important cottage-industries.

The present Vernacular Final Examination should be made compulsory for boys reading in class VI of all aided and recognised schools. The setters of papers need only be paid for setting papers. The examiners need not be paid as the teachers of the same schools in which the examinee reads may be appointed to examine his answer books. Only, each *School Committee* should appoint the panel of such examiners in consultation with the Circle Inspector of schools. This will do away with the necessity of a highly paid Registrar of Departmental examinations who has to pick out examiners from the flocking applicants who abase themselves to creep into his pen. As there is no appealing authority for the rejected from the tribunal of this dignitary he 'at present, entrenched behind the dignity of his office, is, at once, 'Philip drunk' and 'Philip sober.' With the abolition of his office a multitude of servants and ministerial staff under him will automatically be retrenched and this economy should be enough to pay the setters. For, there must be charged no examination fee of any kind for the above Vernacular Final examination.

The enclosed syllabus of vocational education is to begin from class VII and end at the close of the present class X. A public examination should be held as here-to-fore at the end of this period and those obtaining first and second class marks in their optionals should be allowed to join Universities, if they so wish, *in those subjects only*. Such students, after a year's practical training, should be awarded *Certificates* after a qualifying test. Those continuing their studies in colleges meant for further qualifications in those subjects should be awarded *Diplomas* after a time limit to be fixed by authorities drawing up courses of studies in such colleges. This will increase the utility of the Universities which would then verily cater in daily bread and intellectual bread. The present outcry of the interested politician the '*baker is above the poet*' need not worry revered educationists. No Vice-chancellorial counterblast may then be needed to herald University-champions against secretarial knights.

The schools, no longer dissociated from the Universities, will gain in efficiency. But efficiency requires effective centralised administrative control and it can only be effective when the D. P. I. is placed in sole charge of the whole system also functioning as the Pro-Vice-Chancellor (Ex-officio).

Yours faithfully,
P. C. GUPTA,
Queen's College, Benares.

Items 3, 4, 5, 6 are compulsory. Alternatives have been suggested for items 1 & 2 in the groups noted below. [Numbering scheme throughout is as in A.]

A

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|----------------------|-------------|---|--|
| For 1. History | (2 papers) | (1) Ancient Indian culture
(2) (a) Mohammedan administration
(b) Moghal art. | |
| For 2. Music | (2 papers) | (1) Vocal music
(2) (a) Tabla (for boys only)
(b) Sitar (for girls only) } may offer both at option. | |
| or { | 3. Hindi | (2 papers) | (1) Rama & Krihsna Literature (adapted)
(2) (a) Modern Prose & Poetry (adapted)
(b) (i) Trans. into Hindi from English.
(ii) „ „ Urdu „ „ |
| | „ Urdu | (2 papers) | (1) Delhi & Lucknow School (adapted)
(2) (a) Modern Prose & Poetry (adapted)
(b) i. Trans. into Urdu from English.
ii. „ „ Hindi „ „ |
| or { | 4. Sanskrit | (3 papers) | (1) Gita 2nd Canto & Niti Shatak
(2) Raghuvamsa 4th Sarga
(3) Grammar, unseen, translation. |
| | „ Persian | (3 papers) | (1) Firdausi (adapted & Omar)
(2) Akbar Nama (adapted)
(3) Grammar, unseen, translation. |
| | „ Arabic | (3 papers) | (1) Al koran (adapted)
(2) Modern Arabic literature (adapted)
(3) Grammar, unseen, translation. |
| For 5. Mother tongue | (2 papers) | (1) History of the literature
(2) (a) Unseen Prose & Poetry (modern) from one known author. (Prescribed)
(b) Biographical sketch of one religious reformer (to be prescribed). | |
| For 6. English | (4 papers) | (1) Seen and unseen <i>Prose</i>
(2) Seen and unseen <i>Poetry</i>
(3) (a) Punctuation & summary writing
(b) Parsing, narration and analysis
(4) Translation and composition. | |

B

- For 1. History (1) Mohammedan culture
 (2) (a) Company's administration
 (b) Maratha administration.
 2 to 6 as above.

C

- For 1. Geography (2 papers) (1) Geography of India
 (2) (a) Elementary Economics
 (b) Means of Inland Supply & Transport.
 For 2. Drawing (2 papers) (1) Free Arm
 (2) (a) Floral design in colour (for girls)
 (b) Constructional designs (for boys).

D

- For 1. Geography (2 papers) (1) Asia and Europe
 (2) (a) Tides and Seasons (world)
 (b) Trade and Communications (ditto).
 For 2. Drawing (2 papers) (1) Pastel and crayon work
 (2) (a) Survey plans (simple)
 (b) Map drawing.

E

- For 1. Geography (2 papers) (1) Flora and Fauna of the world
 (2) (a) Agriculture (theory only)
 (b) Elementary Economics.
 For 2. Drawing (2 papers) (1) Object Drawing
 (2) (a) Modelling
 (b) Shading.

F

- For 1. Mathematics (2 papers) (1) Arithmetic upto simple interest and
 Algebra upto factors
 (2) Simple statics and dynamics.
 For 2. Chemistry (2 papers) (1) Elementary knowledge of salts and
 compounds
 (2) Simple analysis of sugar (rules and
 principles).

G

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| For 1. Mathematics
(2 papers) | (1) Geometry, Euclid. 4 books
(2) Mensuration. |
| For 2. | (1) Plane Table and Theodolite Survey
(2) Elementary Botany. |

H

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|----------------------------------|---|
| For 1. Mathematics
(2 papers) | (1) Physics (Heat)
(2) Statics and dynamics. |
| For 2. Physiology
(2 papers) | (1) Simple Zoology
(2) Human Body. |

I

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| For 1. Physiology
(2 papers) | (1) Anatomy of the non-vertebrate
(2) „ „ „ vertebrate. |
| For 2. Hygiene (2 papers) | (1) Personal, urban and rural
(2) First aid to the Injured and simple treatments. |

J

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| For 1. Hygiene (2 papers) | (1) Home nursing
(2) The care of the mother. |
| For 2. Dispensing
(2 papers) | (1) Mixing medicines and powders
(2) (a) Out-door dispensing—The eye,
the ear, the throat
(b) Theoretical knowledge of major
and minor operations. |

K

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| For 1. Dispensing
(2 papers) | As in J. |
| For 2. Ayurvedic—
treatment (2 papers) | (1) Elementary pharmacopæia
(2) „ „ Materia medica. |

L

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| For 1. Systems of—
treatment (2 papers) | (1) Old methods of treatment
(2) Modern methods of treatment. |
| For 2. General science
(2 papers) | (1) Domestic science
(2) Elementary zoology. |

M

- For 1. History of England (2 papers) (1) The British Parliament
(2) Speeches (adapted).
- For 2. The art of—speaking (2 papers) (1) Great orations (*Philippics*)—adapted
(2) Other English orators—adapted.

N

- For 1. History of England (2 papers) (1) Parliamentary Acts and India.
(2) Elementary civics.
- For 2. Administration (2 papers) (1) Finance, customs, tariff in England
(2) „ „ „ „ India.

O

- For 1. Administration (2 papers) (1) The sphere of a Munsiff's court
(2) „ „ „ Magistrate's court.
- For 2. Drafting (2 papers) (1) Drafting petitions for the above courts
(2) Registration of files.

P

- For 1. Corporation laws (2 papers) (1) Municipal administration
(2) The organisation of the Panchayat.
- For 2. The village—co-operative (2 papers) (1) Administration and rules
(2) Takkavi grants.

Q

- For 1. Rural— (2 papers) (1) Village uplift
organisation (2) The sphere of the Panchayat.
- For 2. The dairy (2 papers) (1) The care of the bovine
(2) Pasturisation.

R

- For 1. The village (2 papers) (1) Cottage industries
(2) Agricultural products & their markets.
- For 2. Booking (2 papers) (1) Luggage, Parcels
(2) Goods.

S

- For 1. Rural— (2 papers) (1) The duties of the Patwari and the
administration Chowkidar
(2) Cognizable offences and the Police Act.
- For 2. Poultry farming (2 papers) (1) Theory of farming
(2) Theory of organisation.

T

- For 1. Scouting (2 papers) (1) The Rules of the road
(2) Railway administration in India.
- For 2. Rural— As in **S** above.
administration (2 papers)

U

- For 1. Geometrical— (1) Solid geometry (Elementary)
Drawing (2 papers) (2) Figures and their constructions.
- For 2. Mensuration (2 papers) (1) Graph
(2) Measurements and problems.

V

- For 1. Finance (2 papers) (1) The bank
(2) Customs and duties.
- For 2. Book-keeping (2 papers) (1) The ledger, the cash-book
(2) 'The Bahi-khata.'

W

- For 1. Commerce (2 papers) (1) Commercial geography
(2) Book-keeping.
- For 2. The Exchange (2 papers) (1) Money
(2) Markets.

X

- For 1. Chemistry (2 papers) (1) Process for purifying precious metals
(2) Preparation of aniline dyes
(Elementary).
- For 2. Printing & dyeing (2 papers) (1) The calico
(2) Wool.

Y

- For 1. Electricity (2 papers) (1) Theory
(2) The telegraph and telephone.
- For 2. Science & inventions (2 papers) (1) War inventions
(2) The Electric power house and its functions.

Z

- For 1. Physics (2 papers) (1) Light and the spectrum
(2) Heat.
- For 2. The weather (2 papers) (1) Weather charts
(2) Tides and times.

1

- For 1. Physics (2 papers) (1) Sound
(2) The principle of the wireless.
- For 2. Science & inventions (2 papers) As in Y above.

2

- For 1. Coastal traffic (2 papers) (1) The docks and harbours of India
(2) Customs and coastal trade.
- For 2. The weather (2 papers) As in Z above.

etc., etc.

REVIEWS

Reading Through Speech Rhymes And Jingles For Infant School, by E. Winifred Miller and Lucy Diamond, Oxford University Press. Price Rs. 1-8.

The problem of child education had arrested the attention of ancient pedagogues only or 'pedagogues anciently inclined;' but in the modern age the problem has become more acutely complex and is now the love and care of the educational expert, the literary reformer and the ruling diplomat. The imminent danger involved in the neglect of the child and his education has been fully realised by literatures and statesmen alike and various steps have been taken to found and foster organisations sponsoring child education.

The volume 'Reading Through Speech' is a handbook for teachers, for guiding infant school children in the art of correct speech and correct reading. The child is so much of a wax that an expert moulding of his inner faculties to cultured channels is not only desirable but is of national necessity. It is not the work of the laymen to culture the babble of the child into literary eloquence. The authors have collaborated to seek ways and means, to initiate the child into a working knowledge of the phonic basis of English tongue, by giving lessons associating sounds and symbols. It is really true that the child without a cultured home is a hard job and his speech and reading methods are more difficult of being moulded. The emphasis on the 'Listening Habits' of the child is the surest mainstay of correct speech which in its turn is basis of correct reading. Other suggestions of breath-control and providing small mirrors to infant children to watch their lip and teeth movements would surely meet with hilarious response from them. The various jingles and rhymes are conceived to provide interest and instruction which are admirably combined in this little yet valuable book and we confidently recommend it to all interested in infant education.

King Henry VIII by William Shakespeare. The Scholar's Library Series. Edited by M. St. Clare Byrne with an Introduction by Guy Boas. Price 2s. Macmillan & Co Ltd, St. Martins Street, London.

There must be an excuse for adding to the myriad extant editions of Shakespeare's Plays with Guy Boas as the General

Editor of the Scholars Library Series. The Publishers have combined scholarship in this edition with cheapness of production. In this Series all Shakespearean Plays have been ably edited. The editing of classics is a job with many points to score with an able pen and the editor herein has really scored. The various controversies regarding the authorship and probable date of production of the plays of Shakespeare shall be an eternal conundrum to interest scholars and in this volume many of these literary controversies have been given lucid treatment. The characterisations of the historical personages in the introduction are imbued with subtle scholarship and the annotations initiate the reader to a fuller understanding of the play and its time. The labour spent over the enumeration of various readings in the notes are sure to be of immense help to students of Shakespeare.

England in the Sixteenth and Seventeenth Centuries.

A Text-book for Burma, India and the East by A. M. Druitt, Principal, St. Mary's S.P.G. High School for Girls, Rangoon. Published by Humphrey Milford, Oxford University Press. Price Rs. 1-12.

There is hardly any age in the history of English people which is fraught with more political opportunities and still more national dangers than the sixteenth and seventeenth centuries. The splendour of Tudor Kingship, the fascinating intrigues of Stuart monarchs, and the consequent nation building programme of the English are all built round the fabric of these two centuries. The writer has sketched the history with the zeal of a historian and the craft of an author. In language that is eminently suited for school children, there is in evidence a zealous desire against superfluities and partiality to facts for historical perspective. The volume contains blocks of eminent historical personalities and useful maps and we heartily recommend it with its fine paper and printing to the notice of those for whom it is intended.

Village Education, by E. V. S. Maniam. To be had of the Job Press, Cawnpore.

There is no gainsaying the fact that any constructive programme for national regeneration in India must be pitched on the unitary reform of villages. In this small brochure the author has thrown luminous lights on some aspects of rural education and has addressed it 'to those of the voluntary workers who are willing to contribute their mite towards the success of the

movement.' It is really a painful fact 'that our rural education instead of training the village boys into better and more intelligent followers of their fathers' professions, creates a contempt for their fathers and a hatred for their homes and a burning ambition to wield a pen in an office for the rest of their lives.' Various practical suggestions from American and Dutch rural educational systems are cited with a detailed syllabus. The author rightly quotes Sir George Anderson that 'success should not be dependent on spasmodic efforts from without; there should be a wide-spread movement from within,' and exhorts—the sincere cooperation of students leaving their college careers to take up the cause of the unhappy and backward village folk and by example and precept make them a worthy national unit. The book deserves perusal by aspirants for rural uplift movement.

International Education Review. General Editors: Dr. Paul Monroe and Dr. Alfred Baeumler, New York. Berlin Editor: Dr. Phil. Dr. iur Theodor Wilhelm. (Bimonthly. 80 pages. Subscription \$3.50.) Weidmannsche Verlagsbuchhandlung, Berlin S.W. 68.

We have great pleasure in making known to our readers the latest issue of the International Education Review which bids fair to become one of the indispensable journals on International topics. The articles bear the stamp of those who have thought upon the subject and have indisputed opinions. The articles on 'The Public Schools of Germany' with their political bias and articles on travel and philosophy do credit to the editors. We wish the Review success in its noble mission to facilitate exchange of International thought and a fuller understanding of the problems of cultural advancement and international peace.

Educational Museums at the Educational Centres of India, by J. C. Basak. To be had of the author at 74, Durga Charan Mitter Street, Calcutta. Price 6 annas.

Mr. Basak has evidently taken to heart the good that Educational Museums are capable of doing to the student community and the general public. He has admirably detailed in outline the different items which might be the basis of a really good Museum. The value of Museums cannot be overemphasised with regard to cultural advancement and broadened educational outlook. The suggestions are easily practicable and we recommend this small book to the notice of those responsible for the education of children.

Teachers' and Authors' List of Four Thousand Important Hindi Words, by Rev. John C. Koenig, M.A. in Educ. To be had of the author at Baloda Bazar, C.P. for Rs. 1-8.

The book is the outcome of laborious cooperation of various teachers at selecting words with regard to their frequency of use in the teaching of Hindi to the primary sections. The aim of the Editor has been to supply a ready list of Hindi words for efficient writing of Primary School readers which may consequently improve the reading speed of the primary school children. We hope this ready reference will not be missed by intending authors of Hindi books for primary stage.

Specimens of Slate Cards in Arithmetic, by Rev. Menzel, Bishrampur, C.P. Price 8 annas.

These slate cards are intended for the use of primary school children and are novel and interesting. They do eliminate the waste of time in dictation and correction of mathematical exercises in addition, subtraction, multiplication and division. In Mathematics accuracy is as important as speed and the cards would give ample exercise to the little children for proficiency in the four simple rules of arithmetic.

Report of the 27th Provincial Educational Conference, Salem, May 1936. Published by the Reception Committee.

The Report consists of the Presidential address, the various reports of the sectional meetings of the Conference together with the text of useful resolutions that the Conference passed for the educational amelioration of the district. The Presidential address is thought-provoking and the section-reports are full. It is of considerable interest to those who consider education a live topic.

A Guide To Salem District, by L. Lakshminarayanan, B.A., L.T., Municipal High School, Salem.

This was intended for the use of the delegates to the 27th Provincial Educational Conference, Salem. The delegate to any educational conference is not content only with the pedagogical aspect but as a curious stranger in a place he really wants a guide to the places of educational interest or of historical repute which he may visit at leisure. With this informative guide the need is amply fulfilled and even a non-educational visitor cannot think of being stranded in Salem now.

THE WORLD-CONFERENCE OF EDUCATION.*

BY

PRINCIPAL P. SESHADRI, M.A.,

Ajmer.

It is a long way from Ajmer to Colombo, where I am embarking next Sunday, on P. & O. "Kaiser-i-Hind," to attend the ensuing World-Conference of Education in Tokio on behalf of the Government of India and the All-India Federation of Educational Associations. But it is a pleasant interruption to be invited on the way here, to speak on the aims and objects of the great world-organization, under the auspices of which these periodical conferences are held.

It was in the year 1923 that some representative educators of the world met at San Francisco and resolved upon the establishment of a World-Federation of Educational Associations which would bring together, at least once in two years, some leading workers in the cause of education of the young, for mutual improvement and the advancement of their common interests. The idea was to enable educators to exchange notes, place their knowledge and experience at the disposal of one another, and work for the spread of education, in general, by rousing the interests of people all over the world to look upon it as the most valuable investment for any nation. The Conferences have met every two years since the establishment of the Federation, at Edinburgh, Toronto, Geneva, Denver, Dublin and Oxford, and will meet this summer at Tokio in Japan, a country which has richly deserved the honour, in view of her remarkable educational progress in recent decades. Illiteracy has been wiped out from the land by the deliberate efforts of statesmanship; the country has an efficient system of secondary education in which technical and vocational training plays a prominent part and there are several centres of University learning which are very modern in their outlook and not merely places for academic studies. What better venue can there be for a conference of this kind than the capital of the Japanese Empire?

The most important aim of the World Conference is to achieve through education, "International understanding, appre-

* Broadcast address from Bombay. 21st June, 1937.

ciation, justice, goodwill, friendship and co-operation." It may seem somewhat futile speaking of international peace at the present juncture in the political affairs of the world, when the League of Nations has not been able to prevent acts of aggression on the part of more than one power and narrow national patriotisms are very much in evidence. But the Federation is hopeful of achieving something useful by tackling young people still at school and preaching to them the inestimable benefits of peace and the avoidance of the horrors of war. We believe in the maxim of Ignatius Loyola, the illustrious founder of the Society of Jesus, that if the children are entrusted to our charge we need not bother about anything else. It may be difficult for the elder generation to give up its strong prejudices and aggressive nationalism. But at least young children should be able to respond to this appeal and act upon it in their own time. Otherwise, there is little hope for the happiness and prosperity of mankind in the future. Thanks to a large donation given by two American millionaires to advance this particular work of the Conference, it has been possible to carry on for some years vigorous propaganda for peace in the educational world.

Another important aim of the World Conference is to raise the position of teachers and to improve the quality of teaching throughout the world. In every member of the teaching profession, there have certainly been heart searchings some time or other, whether he has been able to give of his best to the young-children entrusted to his charge. It is appalling, sometimes, to think of the inefficiency of the profession and the backwardness of several of its members in acquiring knowledge of the most effective methods of teaching their subjects. The lectures and papers at the Conference enable members of the teaching profession, assembled from various parts of the world, to brush up their knowledge of educational theory and practice and go back to their home with the inspiring feeling that they have learnt something more about their craft. It is also true the Conference aims at raising the position of teachers, but it is certainly not a mere trade union. It has, however, the firm conviction that one of the most effective ways of ensuring educational efficiency is to raise the teaching profession to its proper level of economic competence. There is no greater menace to a nation than a discontented teaching profession, because in their hands lies the capacity of making or marring the younger generation.

Educational experiments all over the world have to be co-ordinated, to make educational work achieve its best results.

We cannot afford to be working in the dark, unmindful of research work elsewhere, if we wish to avoid the mistakes which others have made, and benefit by the latest knowledge obtained in other parts of the world. These periodical Conferences serve the useful purpose of making the work of teachers all over the world a vast international co-operative effort. One of the definite aims of the Conference is to "make educational movements, events and achievements quickly available to the teaching profession of all lands." Obviously no member of the teaching profession can afford to be ignorant of the activities of an organization of this kind, even if he is not able to attend the actual Conferences.

In many countries we have not yet even reached the stage of bringing the educators of the nation together at periodical conferences, though in recent years, we have succeeded in organizing annual conferences in India under the auspices of the All-India Federation of Educational Associations inaugurated in 1925. But this World-Organization facilitates personal contacts among the official representatives of all countries. The inauguration of the All-India Federation of Educational Associations and its affiliation to the World-Federation has brought us into touch with the educators of the rest of the world, and we trust it will become more and more intimate with the growth of years and the adequate representation of India at the biennial conferences held in the various parts of the world.

It is no ordinary education for a person to take part in the proceedings of an international gathering of this kind. At the fourth conference which was held in the beautiful city of Denver, high on the Rockies, in the United States of America in 1931, at which also I had the honour of leading the Indian Delegation, though it was comparatively smaller, there were representatives of as many as fifty-four nations of the world. It was a splendid gathering and as one stood before the inevitable microphone, facing the large audience of five to six thousand people, it was a wonderful inspiration, strengthening one's faith in the essential unity of the human race and the prospect of international understanding, at least at some time in the future.

An extensive organization of this kind can function most usefully only in sections covering more or less the entire field of education, though the spectacular general assemblies of the Conference make a powerful appeal to the imagination, demonstrating the great potentialities behind the movement. There are a number of sectional meetings every morning, the afternoons being reserved for informal talks among the members who often come from the most distant parts of the world. There is no

stage in education for which adequate provision has not been made in the programme of the Conference. We begin at the beginning and discuss questions relating to pre-school and kindergarten education in an independent section. It is well-known that considerable progress has been made in recent years in problems of child-psychology and it is our endeavour to keep abreast of the times in this subject. We have separate sections for elementary and rural education though some of the questions may be common. Visitors from India have probably a good deal to learn at the latter section, listening to delegates from foreign countries explaining how the difficulties concerned have been tackled by them. Another section of special interest to India is Adult Education. It is not often realised in this country that an effective solution of the education of the masses has to embrace a two-fold programme; the bringing of all children of school-going age within the four walls of the class-room, and also the teaching of grown-up people who are past school age, but must still be made to acquire at least the rudiments of literacy. There are again sections for Secondary Education, University Education, Commercial Education, the Training of Teachers, and so on. The deliberations include not only such technical questions relating to education, but also the general problems of Health and Home which have great influence on the teacher's work. In view of the increasing part played by Science in modern systems of education, it has been found necessary to open a separate section for Science-Teaching whose main function, I expect, will be to discuss the means of popularising scientific knowledge, without a minimum equipment of which no person's education can be considered complete.

When appearing before international gatherings of this kind, the representative from India is subjected to a curious handicap as was my experience six years ago at Denver. He cannot give such a glowing account of educational progress, particularly in regard to the literacy of the masses, as the representatives of the more advanced countries of Europe and America and Japan in the East. It is perhaps not sufficiently well-known here that there is no such thing as illiteracy among them, the only illiterates being sometimes the demented or half-witted people. There is no need to ask the percentage of literacy as almost everybody is literate, while the sad confession has to be made that less than ten per cent of the population is literate in India and the percentage for women is less than even two. It has been very oppressive to my mind, as it must be to any Indian who realised it, that the number of illiterate people has been actually increasing

in this country. According to the last Census, for instance, we added more than thirty millions to the population, but as the progress of literacy did not even keep pace with the increase, there were actually more illiterate people in 1931 than ten years earlier. If our representatives at these Conferences do nothing but merely bring back first-hand knowledge of how the problem has been tackled in the more advanced countries, they will have done enough. It is hoped that this handicap will be gradually removed and the time is not far distant when the representatives from India can hold their heads high and declare triumphantly that the stagnation of centuries has ended and that illiteracy has disappeared from this country.

It has been the ambition of some of us connected with this movement, to invite the World-Conference to hold one of its sessions here. In fact, I have a mandate from the All-India Federation of Educational Associations, to persuade my Colleagues on the Board of Directors of the World Conference to hold their next gathering in 1939 in India. In view of such difficulties as adverse climatic conditions in summer when the conference has to be held, want of adequate finances and the absence of any great enthusiasm for education on a nation-wide scale, it may not be possible to realise the dream immediately. But we will at least come back with increased knowledge and refreshed minds, having formed new contacts with the educational leaders of the world and renewed our friendship with those whom we had met at previous Conferences. Within less than an hour, I shall resume my journey to Colombo *en route* to Japan, but I may be allowed to give the assurance, on behalf of the representatives proceeding to the Conference from India, of whom I am glad to say there will be more than a dozen including a few ladies, it will be our best endeavour to follow the proceedings with keen interest, particularly from the stand-point of India's peculiar needs and difficulties and place our knowledge and experience at the disposal of

“That sweet Indian land
Whose air is balm, whose ocean spreads
O'er coral rocks and amber beds;
Whose rivers are like rich brides
Lovely with gold beneath their tides;
Whose sandal groves and bowers of spice
Might be a Peri's paradise.”

(With the compliments of the Director of Public Information)

No. F.140/4/37.

Simla, the 10th June, 1937.

Press Note.

MONUMENT AT HATHGAON IN THE UNITED PROVINCES.

To the large number of monuments in the United Provinces maintained by the Government of India, a recent addition has been proposed. This is the building known as Hathikhana or Jai Chandi in village Hathgaon, tahsil Khaga, Fatehpur District. The village of Hathgaon like other places which have claims to great antiquity is situated at considerable height above the surrounding plain. Among the interesting ruins the most prominent are those of a Fort known, owing to its wide expanse, as Hathikhana, or stable for elephants. Another name given to it is Jai Chandi, apparently from Jai Chand, the last Hindu Ruler of Kanauj, who lived at the end of the 12th century A.D. The association of Jai Chand with the place, however, appears to be adventitious, as its historical antiquity dates to long before his time. But the name of the last Hindu King was probably a convenient one to give when the Hindu rule had disappeared, and its present survival only points to the Hindu origin of the place. The only building worth preserving at Hathgaon is a dilapidated mosque which must have been constructed shortly after Muslim occupation, the materials being provided by the ruins of the older faith. There are 24 pillars here, arranged in rows of six, with some of the ancient doorways, sculptures, and architectural fragments built into the structure. At least 4 Hindu temples seem to have gone into the construction of the mosque which is generally attributed to the rule of the Sultans of Jaunpur in the 15th century A.D. After the building had been consecrated to Islamic worship, it again seems to have fallen into neglect, and it was only recently that the local public got interested in it. The custodians of the place have, however, no objection to the repairs of the building being undertaken by Government as they feel that it will not be possible for them to maintain this ancient structure in a way commensurate with its antiquarian value.

Archæological Survey of India.

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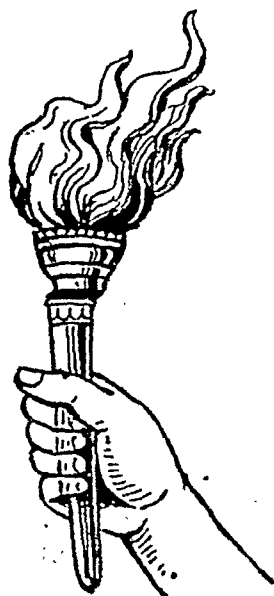
Boil fresh water. Warm up a clean pot. Put in one teaspoonful of good Indian tea for each person and one spoonful extra. Immediately the water boils, pour it on the tea. Let the tea brew for five minutes; then pour it into cups, adding milk and sugar.

VOL. II

No. 9

THE INDIAN JOURNAL OF EDUCATION

MANAGING EDITOR:
D. P. KHATTRY



SEPTEMBER, 1937

ALL-INDIA FEDERATION OF
EDUCATIONAL ASSOCIATIONS

POST-BOX 52, CAWNPORE

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Editors' Note

The Editors will be glad to receive contributions on all matters educational and particularly invite for publication (a) authoritative articles on educational topics ; (b) short articles dealing with educational research ; (c) accounts of educational experiments ; (d) articles containing statistics and their application to the solution of educational problems ; (e) short notices of original works ; (f) news of interest to educational workers.

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SOME PROBLEMS OF SECONDARY EDUCATION

BY

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(Presidential Address of 16th All-Bengal Teachers' Conference)

Secondary education is the great pivot of the whole educational system of a country. For while it directly shapes the form and nature of the earlier stages of education, it indirectly controls the higher stages also, as the High Schools are the feeder institutions of the University. It has the sole monopoly of supplying teachers to the primary schools and students to the University. Besides it deals with boys and youths during that impressionable age, when for good or for evil they receive a definite stamp of character, which it is difficult if not impossible to shake off in later years. Rightly conceived, therefore, secondary education is the sole channel through which the vital fluid of intellectual nourishment flows backward and forward, and brings fertility to the country as a whole. If it is choked or soiled, the entire system of education is affected thereby. In short it has the power to make or mar the future of a country so far at least as that future depends upon a healthy system of education.

Unfortunately this simple truth was not realised until quite recently. The reforming activities of the nation have been mostly engaged with the Primary education and the University. It is only a by-product of these activities, and by the stern logic of facts, that our attention has been suddenly turned towards this all-important problem.

There can be no denying the fact that during the last few years there has been almost a sort of feverish excitement about the secondary education. The pendulum of public opinion has

swung from one extreme to the other. From a comparative apathy and indifference there has been a sudden change to over-zealous attention. Thirty years ago the people had no disquieting thoughts about this branch of our education. To-day almost all the evils of our life and society are ascribed to it. The dire prospect of unemployment of the middle-class young men has brought in a scathing condemnation of the literary education imparted in schools, while the University ascribes the failure of higher education to the weak foundations of the school-system. The result has been an insistent cry for vocational education on the one hand and the raising of Matriculation standard on the other.

The fundamental assumption underlying these proposals is that the school education is intended to serve only two ends, *viz.*, to make a man fit for some vocation in life, or to serve as a feeder to the University. It is necessary to put these views to a searching criticism. All true reforms must have a definite conception of their goal. It is necessary, therefore, to clarify our ideas about the true aims and objects of school education. Unless we have clearly defined views about the aim, which receive the general approbation, it is not very fruitful to discuss the means and methods of achieving it. And if the ultimate aims are wrongly conceived, the reform would be worse than useless.

It appears to me that while a University career or a suitable employment may be the ulterior objects in view, the ideals of a secondary education would be unnecessarily cramped and narrowed down, if we confine ourselves to these two aims. The school education ought to aim at the physical, moral, intellectual and emotional development of boys of a particular age, to whatsoever use such development might be applied in later life. It would be a mistake, therefore, to proceed with the reforms of secondary education solely with a view to making it more vocational or more suited to the needs of the University. It is necessary, no doubt, to train the eyes and hands of boys and to implant in their minds the dignity of labour. Arrangements should be made for some elementary training in selected arts and crafts in order to develop various types of practical and constructive ability. The courses in history and geography should be suitably modified in order to acquaint the boy with his country's past and present. There should be sufficient correlation of instruction to living interests and environment so as to make it less unreal, dull, and mechanical. But the primary object of school education should be to give a sound general education to a boy with a view to develop his body and mind so that it might stand him in good stead whether he goes

to the University for higher education or chooses a vocation after leaving the school. In other words, the school education should not be deliberately designed for any particular walk of life, and must be regarded as self-sufficient stage. But it should give the boy such a training as would enable him to adapt himself easily to any specific calling he chooses to pursue after leaving the school. It is, therefore, desirable that there should be ample provisions for different types of institutions, which a boy might select according to his needs and capacities after finishing his school education.

Vocational course is now the cry of the day, and general literary studies seem to count for nothing in the eyes of the reformers. In times of panic people are apt to lose sense of proportion and think in extremes. But if we are too much swayed by immediate needs in our attempt to reconstruct the structure of education, we shall commit a great blunder, such as our forefathers did, about 100 years ago, when the present system of education was launched with the blessings of the British Government. The alluring prospect of securing jobs under the British Government made them assign too great an importance to the learning of English and too little to the mother tongue. The dazzling grandeur of western civilization similarly intoxicated them and the whole scheme of education was so designed as to divorce it from the traditions and culture of the country. No doubt it fulfilled the immediate needs and has done great good to us, but we now realise also the great defects of the scheme which could have been avoided if the system of education were devised not with any immediate utilitarian object in view, but as a method of discipline subserving a definite purpose in life. Let us not repeat the same mistake. Education must be correlated with life as a whole and should not serve as a handmaid to any particular theory or doctrine of utility. In some respects, education resembles art. Like art, education leads to a fuller expression of life, but must not degenerate into an instrument of an utilitarian propaganda. Like true art, liberal education has also great value of its own, apart from serving as a means of livelihood, and human society would be much the worse if we refuse to give due recognition to it. It is well to remember that liberal education alone can give that mental training which lies at the root of all human improvements, including even scientific and technical inventions.

The analogy of art and education may be pursued a little further. However valuable and dignified they may be, we must recognise the limitations of both. They are primarily to be

regarded as disciplines, aesthetic and intellectual, and the other purposes to which they are or may be applied are only secondary. Art may be a good source of livelihood or a valuable help in great crises of national life such as political or religious revolution, but these do not constitute the essence of art, and the value of works of art should not be judged by the extent to which they can be put to these uses. Education is also to be primarily regarded as a high moral, physical, emotional and intellectual discipline, and while it is expected to make a man eminently fit for the hard struggles of life, or highly useful for the country in various ways, its merits should not be judged by this test alone. Because education is not the only important factor which makes a man what he is. The influence of home, society, and country are equally, if not more, important factors which determine a man's career and character. It is necessary to remember these limitations of education. For if we pitch our hopes too high, we are sure to be disappointed, and to misjudge the value of education and underestimate its worth. The hypothesis, too often heard, that education is the 'panacea for all human ills' adds one more illustration, how, in times of panic, we are apt to think in extremes. When a politician speaks, he ascribes all the ills of our life and society to the present form of government. Educational reformers on the other hand think that education is the root of all our evils. In the opinion of both the great millennium would come as soon as the form of Government or education is changed. They ignore the inherent limitations of the capacity of Government or of education to solve all the problems of a country.

Besides, little do these reformers realise that the form of constitution or the form of education has far less influence on the destinies of a country than the type or character of the men who run the one or the other. Even a theoretically ideal form of Government would break down in the hands of incapable and incompetent men, and the best form of education would bear little fruit if it is not entrusted to right type of teachers.

In my opinion the first step in the solution of the problem of education is to tackle with the question of teachers. While I do not deny for a moment the great need of changes in form and contents of education, to which I have referred above, I maintain that no reform can be really fruitful which does not endeavour to engage a highly efficient band of men, the very best that our country produces, to move the wheels of our educational system. Even the very best of railway trains, with all up-to-date luxuries, including air-conditioned compartments, would come to grief if

left in charge of a bad driver and guard. So the most well-thought-out schemes of educational reform would founder if nothing is done by way of improving the pay and prospects of the teachers, so as to attract the right type of men, and by making them contented and giving them decent status in life, to make them zealous and devoted workers in the cause to which they dedicate their lives. The average salary paid to the primary and secondary school teachers is perhaps the lowest in India, and its glaring inadequacy has been a standing scandal. The treatment they generally receive at the hands of the authorities as well as of the public also leave much to be desired. It is often difficult for them to feel that they are treated as respectable gentlemen. Recently I was surprised to find that there was no provision by which a school teacher could claim leave on full pay for even a single day for any length of service they might put in. I maintain in all seriousness that so long as this state of affairs continues, efforts at educational reform in schools are bound to prove a huge failure. I have given expression to these views on more than one occasion. One of the chief aims of school education is the formation of character and personality of the students. This can be done mainly by the personal influence of teachers with whom the boys daily come in contact, and whose examples make such a deep impression upon them. But so long as the teaching profession remains the Cinderella of all vocations in life and the last refuge of despondent youths, the results that can be expected in this direction may be easily imagined.

All schemes of educational reform must, therefore, grapple with the problem of teachers. There are at present two projects in view which are likely to affect this question. One is the establishment of a Board of Secondary Education, and the other the redistribution of schools on a regional basis. As regards the first, the obvious justification of the procedure lies in the necessity of a suitable machinery which could devote itself wholly to the needs of school education. The Calcutta University, which is now entrusted with the more important part of the school education, is too much pre-occupied with problems of higher education, and theoretically the establishment of a separate body has all the arguments in its favour. Similarly, a wise scheme of redistribution of schools, which would ensure economy and efficiency, is a laudable attempt in the right direction. Unfortunately, past experiences have shown that the very best of schemes leads to unexpected and undesirable consequences owing to the manner in which it is put into execution. While it is undeniable that the University of Calcutta cannot pay sufficient

attention to the needs of 1200 schools under its care, and its constitution is not also well-designed for this purpose, the very fact that the schools are under an association which includes some of the very best men of our country, ensures them certain amount of prestige and reputation, and guarantees a certain degree of excellence. Unless the constitution of the new Board is such as to inspire public faith and confidence in its integrity and capacity, it might prove to be a worse substitute. For a good part-time supervisor may be far better than a bad whole-time man. The same thing is true of the other scheme. If, after a proper educational survey, a programme of the readjustment of school education is taken up with the sole view to prevent avoidable waste, and increase the efficiency of the schools by raising the pay of teachers, and providing additional facilities for diversified types of education by the establishment of new types of schools like Commercial schools, Trade schools and Junior Arts schools of England, it would be a step in the right direction. But it would, on the other hand, be just the reverse, if there is any basis for the general apprehension, that the scheme would merely result in reducing the number of schools without any appreciable improvement in any direction, and without even assuring that there would be no diminution in the number of school-going population. While, therefore, we should suspend our judgment on these two schemes, they should form the subjects of deliberation in educational conferences, so that the considered views of the experts might be available to the authorities before they formulate definite plans for their successful execution. While it is premature to grow enthusiastic over them, there is no cause yet for undue pessimism or nervous apprehension. We must accept it to be a good sign of the times that the Government is fully alive to the needs of secondary education. Instead of mere destructive criticism, to which we are naturally prone, we should put our heads together in order to evolve a useful and suitable plan for the successful execution of the two Government schemes which have immense possibilities of good in them.

I should like to say a few words about the great change recently introduced by the University of Calcutta. Nothing constitutes a greater condemnation of our educational ideas and outlook than that it required the genius and resourcefulness of Sir Ashutosh Mookerjee and his worthy son and successor, in order to make the mother tongue the medium of teaching and examination in schools. But now that the obvious thing has come at last, it should be our best endeavour to use it fully, and to the best advantage of education. The habit and possibility of

learning things through our mother tongue should extend the scope and contents of a boy's education. It should also be made a vehicle of imparting to the boys a general knowledge of useful things, in which there is a sad deficiency at the present moment. The new scheme seems to open up vast possibilities, apart from its immediate object, and we must try to explore them. The present Vice-Chancellor of the Calcutta University, who has earned undying fame and eternal gratitude of the country by the introduction of vernacular, has also launched a scheme for the publication of useful books in Bengali. This is a step in the right direction; but while the University can only indicate the way, the task has to be earnestly taken up by others, specially the teachers. If it is wisely pursued a large number of useful Bengali books on all branches of knowledge would be easily available to boys and girls. The value of this for the general education and uplift of the country can hardly be overestimated. We do not often realise what revolution has been wrought by the printing press in the field of education, and to what large extent the function of educational institution can legitimately be taken up by wisely selected libraries. The foreign medium has hitherto barred the door of that library so far as the general mass of people are concerned. But now that the gates have been thrown open, let us make the best use of the printing press for improving the real education of the country. I hope the time is not distant when in Bengal, as in every other progressive country in the world, most varied types of knowledge would be easily accessible to ordinary men and women in their hours of leisure, and the result would be an all-round improvement in the intellectual advancement of the country. The teachers can play a great part in bringing this transformation, and I hope they will rise equal to the occasion.

I have great faith in the power of the teachers for doing immense good to their country. An educational conference gives further impetus to my hope that the latent and potential powers of the teachers would soon be harnessed to the fullest extent to the cause of the uplift of our Motherland. Bengal has paid dearly in the past for its neglect to properly estimate the value and importance of the rôle played by the teachers in shaping the destiny of a country. I hope the country will realise the mistake, and the teachers will be assigned their due place in the new order of things. I feel sure that when that time comes, the teachers will not be found wanting.

DEFINING GOALS IN THE EMPHASIS ON CHARACTER DEVELOPMENT IN THE SECONDARY SCHOOL

BY

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While our general obligation in this respect has long been recognized, there has been a considerable revival of activity and interest in character education within the last decade. The volume of reference to the problems of character development in professional magazines is one index of this. A worker compiling a complete bibliography of such references has listed over four hundred in the past seven years. Over half of these articles could be summarized in two statements, first, that character is a wonderful thing, the chief object of life, and second, that the schools should be doing something about its development. Of course, this generalization is unfair to many much more searching and constructive analyses of the problem.

It is probably safe to say that the greater part of this recent interest in problems of character development in the schools has been centered in the elementary schools. This is shown both by the relative volume of literature and by the nature of materials in this field being published by school systems and publishing houses.

It is hardly necessary to point out the changes that have tended to center our attention upon this problem within the past decade. It is sufficient to say that the new emphasis on character development is a rather inevitable result of fundamental and sweeping changes in the whole structure of our social and economic system, changes that have tended to shift our attention as educators away from the "philosophy of individualism to the new emphasis on group goals and cooperative action." The fact is, life today is making greater demands on character than ever before.

How can we achieve a better definition of goals of character development in the secondary school? This question might be re-stated. Just what is the responsibility of the secondary school for character development? To answer this question adequately

we must do at least two things. We must first of all develop a more clear-cut understanding of the nature of character and how it develops. In the second place, we must agree much more fully than we have on a policy of character development in the secondary school.

What is character? How does character develop? Without answering these questions both policy and practice in character development will continue to be confused and poorly directed in the secondary school. Without answering these questions we can never agree as to our goals nor as to the procedures necessary to reach the goals. Experimentation will be immeasurably handicapped. Unfortunately, teachers seem to be a bit impatient with a discussion of the nature of character. The writer has engaged in such discussions with a number of groups of teachers. Almost invariably they have asked to be told *how* to do the job of character development—they know *what* it is they want to develop. They have assumed character to be what they thought it to be; they wanted to know how to develop character as they conceived of it. Usually one finds that in such a group of teachers there are about as many different notions of what character is as there are teachers in the group. Some of these differences are so fundamental as to lead to directly opposite and even antagonistic approaches in methods of character development. The writer has found such a condition to exist within the same school. One does not have to look far in current practice to find inadequate and mis-conceived definitions of character actually controlling methods of character development. For example, a city high school recently published a bulletin titled "Character Development." In reality this bulletin is a rather formal course in ethics. To accept the definition of character implied by this bulletin would be to define character as synonymous with ethical knowledge. Is this adequate as a working definition? We know it is not.

To arrive at a better common understanding of psychology of character development we should, as a staff project, engage in co-operative study of the nature of character. This study should involve the entire staff. Fortunately, such a study is made much easier now than it was even ten years ago by the presence of a much richer body of psychological literature on the nature of character. The major outcome of such study, as one would expect, is the clarification in the minds of the teachers of their responsibility for character development. It also will tend to eliminate our working at cross purposes simply because we have not arrived at a better common understanding of what we want.

As a further means to clarifying our goals, we need to develop a more settled and consistent policy as to the definite responsibilities of the secondary school. There are still far too many who hold that the main, if not the sole, job of the secondary school is to "concentrate on organized knowledge." Until these people and those who are inclined to a partial acceptance of their position change their attitude our goals will continue to be confused. They usually offer three arguments to support their position.

The first argument is that if the secondary school does a good job in giving its students the knowledge and skills necessary for successful living, character will come as a by-product. It is essentially the age-old notion that knowledge and virtue go hand in hand, that ignorance and vice are inseparable. In its less extreme form we see it in the recent statement of a Connecticut principal who said, "Every teacher in my corps is teaching the pupils character in every subject each hour of the day." Further inquiry reveals that only the regular school routine is being followed, with no special attention to the character outcomes. *Laissez faire* is the rule, character is expected or hoped for as a by-product. In a sense, of course, this principal is right. For our characters are forming constantly out of all the relationships and acts of our daily lives. They do not wait for a special character education period in the school program to take their trend. The point is, however, that such an argument ignores two fundamental principles the validity of which has been well established. It violates the principle that only those educational objectives are effectively obtained that are consciously sought. It also violates the principle that there is really a low degree of relationship between knowledge and conduct.

This second principle is especially important. If knowledge and virtue were directly related we would expect the relationship to be specially high when ethical knowledge were involved. The evidence suggests that even when ethical knowledge is related to conduct the relationship is surprisingly low. For example, as measured by a fairly comprehensive test of ethical knowledge, 500 reformatory inmates were found to differ very little from high school students and educated adults in their knowledge of what constitutes acceptable conduct. In fact, the inmates were very well aware of the generally accepted standards even with reference to the misconducts that sent them to the reformatory. Surely ethical knowledge, much less general information, cannot be depended upon as a sure motive to right conduct.

The second argument of those who hold that the secondary school does not have a direct responsibility for character develop-

ment is that this is the peculiar responsibility of the elementary school. They take the view that by the time the child reaches adolescence little can be done to change those fundamental attitudes and ideals that control conduct. No one would deny the importance of the early years. Neither can we deny that adolescence is a period of change and development. Attitudes change, ideals form, standards of conduct become crystallized and rationalized as never before.

The attitude that the high school is a place in which we should avoid any emphasis on character development is in part a reaction against misguided efforts at character education in some secondary schools. Unfortunately, to many people "character education" still means direct training in morals. Such training has in most instances failed with high school students. To quote one Massachusetts high school teacher who had charge of such instruction for three years, "Observation of many different rooms has convinced me that the procedure does very little good and may work positive harm."

The third argument is that high school teachers are not trained for the emphasis on character development. In many cases this may be true. But we might as well use the same argument against guidance, student activities, and many other of the newer accepted emphases in secondary education. This lack of training is a challenge, not an argument for a defeatist attitude.

Character is a continuous achievement, the attainment of which does not stop with the oncoming of adolescence. The need for fostering growth in character is as great or greater in the secondary school as in the elementary school. Our first step toward better fulfilment of our responsibilities for character development is a better statement of our goals. It is the writer's conviction that the clarification of our goals will require two things, *first* a cooperative study of the nature of character and its development, and *second* a recognition that character must be planned for in the secondary school, that as an incidental outcome the results are too uncertain and too confusing.

REORGANIZATION OF EDUCATIONAL AIMS

BY

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(A speech delivered at the General Session of the All-India Educational Conference held at Gwalior)

I do not propose to discuss in this short paper the general question of Educational Reorganization which presents so many problems that a brief survey is in danger of becoming too casual and discursive. I shall, therefore, confine myself to one of the specific items—namely, the Reorganization of the *Aims* of Education at various stages—primary, secondary and higher. There is such confusion of thought and misunderstanding on the subject that an attempt at a tentative definition of objectives may perhaps be useful, if only as a basis for discussion.

It is necessary, however, to stress the fact that education must not be visualized by us in terms of fixed grades and classes and when I speak of primary or secondary or higher education, I am not identifying these stages with the existing organization of classes in schools. The proper approach to the problems of educational gradation would be: What are the intellectual and social attainments and attitudes which we should expect the students to acquire at each stage? It is not the class examinations which a student has passed that define his real educational progress but the adaptations of intellect and character which he has successfully achieved. Thus a student may be formally enrolled in a secondary school but actually he may not have acquired even the adaptations essential at the primary stage. Or a keen and intelligent student may be marking time in a secondary school—thanks to the rigidity of the system—while he may be intellectually equipped for the work of the college or the university. With this caution in mind, let me try to state briefly the specific aims which the schools and the colleges must keep before themselves at various stages of the pupil's education.

The aim of *Primary Education*, briefly speaking, is twofold: Firstly, it has to provide for the child a proper introduction to an orientation in the world in which he is growing up so that he may become capable of directing his activities effectively and

fruitfully. Secondly, it must give him a rudimentary control of the tools through which the various facts of culture and civilization can be understood and interpreted, and create in him an eagerness for an interest in assimilating more and more of this culture through his personal activity.

So far as the first Aim is concerned, it involves the social training of the child so that he may get on pleasantly with his fellows and cooperate with them in the social and intellectual pursuits of the school. Without such a cooperative attitude, without checking children's primitive egoism and directing their energies into social channels, effective study becomes impossible and the teacher fritters away much of his time and attention in maintaining order. If a student 'completes' his primary education without acquiring this essential adaptation, he cannot be expected to become an efficient and useful member of society.

The second Aim requires three definite technical 'adaptations,' a term which Professor Morrison of America has used to designate this meaning. The Primary school must secure the '*Reading Adaptation*' which implies the capacity to read intelligently and reflectively and with proper visualization of the symbols of the printed page. Judged from this standard, I am afraid not only a majority of our primary school products but also a majority of those who have received secondary education will be found lamentably inefficient. That is why reading either for pleasure or instruction never becomes a part of their life. Similarly there is the '*Writing Adaptation*,' which is only achieved when the student is able to record what he has learnt or what he wants to say without having much of his attention focussed on the mechanical act of writing itself—when, in other words, it has been mastered, as a tool. Then there is the '*Number Adaptation*' which is essential for all quantitative thinking and which is in demand at almost every step in our everyday life and forms a necessary factor of most scientific learning. These three, it may be cautioned, are not the old 3 R's back in a new disguise. What I am pleading for is such an orientation of the intellectual side of education that it brings about a linking of learning with life and reorganizes our thinking and conduct accordingly.

Aims at the Secondary Stage.

It is necessary to grasp the fact that the present objectives of our Secondary Education, even from the purely academic point of view, are too narrow and its standard too low and inadequate. There is far too much overlapping, too much preoccupation with

mere information and too little interest in real and living knowledge, in acquiring power of stimulating appreciation. The information imparted through the teaching of various subjects is generally too academic and bookish, not related closely and consciously to actual life situations with the result that the fruits of the students' learning are not carried over into their life outside the school. The real test of all learning must always be: Is it used successfully in everyday affairs and activities? If we apply this test to our secondary education, the results are very sobering.

What then are our specific objectives at this stage? Psychologically it may be defined as that stage of educational development where the pupil has acquired the rudimentary capacity to study for himself but is not yet capable of independent and systematic intellectual growth and development without proper guidance. The secondary school should, therefore, aim: (a) at making the pupil intellectually and educationally self-reliant by the time he completes this stage; (b) at establishing fruitful relations of inquiry and understanding between the pupil and his wide, varied and rapidly changing world. He should become capable of adapting himself actively and progressively to changing conditions and not accept his environment either as final or as the unchallenged arbiter of his destiny. An educated man or woman must try to control his environment purposefully, not be controlled by it passively.

These objectives can be achieved, firstly, by making use of the cultural resources of society—its arts, literature, sciences, crafts—for developing intelligent attitudes in students, for helping them to evolve a right sense of values and for teaching them how to deal with their practical situations and problems. Secondly, the school should aim at cultivating large, generous and cultural interests which they may cultivate throughout their life and at discovering their lines of dominant and strong interests along which they can best find their self-expression. On the instructional side, it will be necessary to provide training in independent study and the habit of sustained attention without which such study is impossible. By the time the student completes his secondary education, he should have reasonable facility in the use of his mother tongue, the capacity to write with ease and work with numbers in essential ways, a clear understanding of the important social forces and civic problems and their relation to himself and a general appreciation of what literature, arts, religion and science stand for in modern life. These may be described as minimum essentials which must be acquired by all

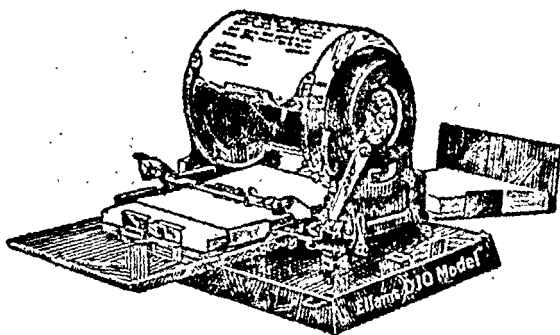
to the extent that their native ability permits. More may, of course, be added unto them: knowledge of some foreign language; practical skill in some craft; more advanced knowledge of some branches of science etc.

Permeating all these specific objectives and giving them meaning, unity and coherence, there will be the guiding Aim—both at the Primary and the Secondary stage—of providing *a full and happy life* for children in a congenial environment in which their capacities and powers may come to fruition.

Aims at the University Stage.

There is a good deal of misunderstanding, even amongst highly educated people, about the meaning and objectives of University Education. Some are of the opinion that the Universities should be, above all, places which train their students for entering various services and professions and they often judge the efficiency of University work from the success of its alumni at competitive examinations. There are others, who obsessed by the idea of technical and industrial progress, want to transform universities into big technological institutions, mainly concerned with the training and production of technical workers of a high order. Both seem to be agreed on the assumption that the universities are somehow responsible not only for vocational education—in one sense or the other—but also for the vocational maladjustment and unemployment which exist in an acute form today. I am unable to see eye to eye with either of these schools of thought though I can hardly discuss their views in this short paper. To me the primary objective of a university is neither coaching for examinations nor turning out narrow specialists of a technical kind. Their aims may be important enough in their own place and there may be institutions—as there are, in all countries—concerned specifically with them. But the university is essentially the spear-head of the intellectual life of the country where living, creative, progressive thought is developed and transmitted to the students as well as the wider public. In view of the great political and economic “storm and stress” of the age and of the highly complicated nature of modern problems, it is necessary that there should be some agency charged with the double function of discussing, examining and evaluating these problems and measures and training the most promising members of the new generation to think clearly, dispassionately and fearlessly—thus equipping them to take part in the progressive reconstruction of social life and fulfilling the obligations of

creative citizenship. The real success of university education depends largely—though not wholly—on the proper definition of its underlying aims and ideals and if you want to judge its real value, you must discover whether it has succeeded in developing intellectual clarity and judgment in its students, whether it has released them from the bondage of superstitions, prejudices and mental timidity, whether it has quickened in them a realization of the fact of human kinship and kindled their sympathy and imagination into a blaze—whether, to put it briefly, it has made them more humane, more sensitive, more ‘cultured’ in the best sense of these words. I have no doubt that, to many “hard-boiled” realists, these objectives will seem to be far too “idealistic” and far-fetched. But I have no cure for intellectual myopia or emotional atrophy. I can only affirm that nothing is more dangerous than to define university aims in narrow vocational terms. The university does, indeed, want its students to become efficient workers but it is equally, nay more intimately, concerned with ensuring that these “workers” also become good “men” and “women” devoted to the pursuit of the highest ends and striving for the realization of the “Good Life” not only for themselves but for all their fellow men and fellow women.



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MODERN EDUCATIONAL PROBLEMS OF ENGLAND

I. PROBLEMS OF UNIVERSITIES.

*(Extracts from the Presidential Address of the Association
of University Teachers in England)*

I want to ask the question whether there are not some points on which a common policy for all the universities would be desirable, questions on which the actions of one university must be affected by the actions of others, or on which any action to be effective must be taken by all. If there are such questions, are we perfectly satisfied to wait for their solution until a dozen universities have all been persuaded to act? Most of us know how long it takes to persuade even one university to make any serious change. And changes that need the agreement of all universities have very little prospect of ever being made at all, or at least are likely to take a generation of working for them. On an occasion like this, we are not called upon to make any immediate practical decision, and can afford to let our minds play freely with possibilities which may seem to us now remote. So I propose to ask whether ideally it might not be desirable to have in some matters some degree of central control over the policy of the universities.

I can sense the wave of horror that is likely to sweep over many of university men at such a suggestion. The individual freedom of each university from any external control is regarded as one of our most precious educational possessions. Give up our independence! Abandon our initiative, our freedom to experiment, and be crushed into a dead level of dull uniformity! Perish the thought! An innocent outsider on hearing, as he frequently might, such language as this, would naturally expect to find our universities humming like hives with new ideas and experiments, with the widest variations between them in their organization and government, in their methods of teaching, their curricula and everything else. Alas, how different is the reality! Having taught in four modern universities (it is of them that for the moment I am speaking) I can say that it is possible to pass from one of them to another and hardly notice the difference. Of course, as one lives in them plenty of little differences do emerge. Yet I am sure that to an external observer the modern

universities would look almost as like each other as the individual members of a flock of sheep look to everyone except their shepherd.

This does not mean that I admire uniformity. I certainly prefer uniform progress to uniform stagnation. But in actual fact, the introduction of a certain degree of central control in certain matters need not in the least imply any increase in the large degree of uniformity which already exists nor any restriction in individual initiative or experiment. We can tell that from our own experience within particular universities. In each one of these there is a central body that has a general control over the particular departments. Yet I have rarely or never heard a complaint by any energetic head of a department who wanted to introduce some novelty into it that he was restricted by the central control of a Senate or Council. Indeed, a much more likely complaint would be of the supreme indifference shown by all his colleagues to anything he did in his own department, unless, of course, he was asking for a greater share of the money available. Still less is there any reason to suppose that some degree of central control would have any tendency to restrict the independence and initiative of individual teachers, which is the most precious side of academic freedom. Small, self-contained, absolutely independent bodies are just as likely, or no more unlikely, to impose restrictions on their individual members, as bodies which are in some respects controlled from a common centre.

There is another assumption commonly made in defending the absolute independence of individual universities. That is the assumption that if there is any degree of central control it must necessarily be control by the State. This assumption I wish to challenge. But in doing so I do not wish to subscribe to that nervous terror of State action which we have inherited from mid-Victorian Liberalism. I remember a number of years ago reading the report of a deputation, in which members of this Association suggested to the Government that university teachers ought to be put on the same footing as school teachers in the matter of pensions. The Chancellor of the Exchequer of that day warned the deputation that this would mean bringing in the State. And he drew an alarming picture of the possible results of this. He seemed to think that those who controlled the State, once they came in at all, would find themselves irresistibly compelled, against their own will and against the will of everyone else, to extend their control more and more till nothing was left of university freedom.

I suggest that there is no warrant in experience for this apprehension. We have seen in the past, and can still see in some countries, universities which are regarded as State institutions, and which yet enjoy by established custom a degree of independence hardly inferior to our own. It is true, of course, that in other countries we have seen in recent years an alarming extension of State control, and even of State tyranny, over the universities. This, however, has not been the result of gradual encroachment, but of a sudden and violent revolution in policy. And if such a revolution ever took place here it would extend to the universities, whether they had previously been State institutions or not. Anyone who imagines, that if a totalitarian state were established here, we should find any protection from its tyranny in the fact, that we have not hitherto been under the control of the State, is living in a fool's paradise.

But this is really beside the point. For my purpose is to challenge the assumption that any degree of central control over universities can only come, if it comes at all, from the State. Why should it not come from the universities themselves? Is there anything impossible in the notion of a federation of universities with a central legislative body which should in some matters have an overriding authority? I am not learned enough in the history of universities to know whether this has ever been tried at any time or in any place. But there seems to be nothing impossible about it. We have, of course, known federal universities ourselves. But what I have in mind is something quite different from that. I am not now putting forward concrete proposals, so I need say nothing about the details of any possible organisation. I will merely say here that, if such an important body ever came into existence, it would have to be something much more than merely representative of the existing governing bodies of universities. A very substantial element of democratic representation would have to be included if the scheme were to be tolerable at all.

It is perhaps more important to consider the questions with which such a central body might deal. One such is the distribution of the more specialized subjects between universities so as to avoid what they describe as "the evil of unnecessary duplication." We can see the growing realization of the need for more effective common action between the universities. I may note, in passing, that this would be a matter not of imposing uniformity on individual universities but rather of imposing a greater degree of variety on them.

Another possible subject for consideration by a central body would be the question of entrance qualifications, which has been so much to the fore lately. Once more, this need not mean that a uniform system of examination must be imposed on all universities. But I think it would be true to say that there are certain changes in general principles which would commend themselves to a considerable majority of university teachers. I am thinking primarily of changes of the subjects and method of examination. But questions also arise in connection with the organization of examinations and with the distribution and grouping of the different examining bodies. Yet in all these matters we find that these changes cannot be brought about at all, or cannot work as satisfactorily as they should, if one or two powerful examining bodies refuse to accept them. This is particularly unsatisfactory if, as is very commonly supposed, the motives for such refusal do not always arise from a consideration of the educational merits of the question at all.

Yet another set of questions suitable for common treatment can be found in the conditions of employment of university teachers. This is one of the points on which our Association has always aimed at a national policy. This does not, of course, debar some variations between different institutions. But if there was a central authority for universities the laying-down of certain minimum standards would be one of its most obvious functions. Again, we have seen on the question of Family Allowance proposals which seem desirable to the great majority of us; yet it is very doubtful if these benefits can be secured at all except by the uniform action of all universities.

There is another point in this connection on which the working of the policy pursued by one university must be seriously affected by the policy pursued by others. That is the tenure of the junior posts. There is a growing tendency among universities to make the three or more years' probationary period in these posts so much of a reality that a considerable proportion of those holding them cannot look forward to a permanent appointment. I believe that signs may already be detected that this policy is beginning to frighten away from university service young men whom we ought to be glad to attract into it. It seems to me possible, also, that it may be tolerable, and even produce some good results, in one university just because other universities do not adopt it so rigidly. In any case it is surely obvious that the working of the system in one university is considerably affected by the policy adopted elsewhere. And there are important considerations in the matter which cannot be treated as purely

domestic concerns, but affect universities and the profession of university teaching as a whole.

There is one other matter, which I hardly dare to mention though it certainly affects the university body as a whole and is, indeed, one of the chief obstacles to effective co-operation between universities. I refer to the special position in the community occupied by the older foundations of Oxford and Cambridge as compared with the more modern universities. I do not believe that any thinking person can regard the situation in this respect as at all satisfactory. A certain amount of rivalry and competition between universities is doubtless a good thing, if kept within bounds. It is natural and inevitable, too, that some institutions should come to occupy a superior position to others. But, in so far as this superior position is due, not to educational merits, but to traditional social prestige, and perhaps, also, to a disproportionate command of wealth, it cannot be regarded as a healthy state of things. But perhaps all this is hardly relevant to the discussion. For I am quite sure that nobody in this country, however powerful, would ever have the courage to tackle this problem seriously.

Let me conclude with a general consideration. We have been inclined hitherto to interpret academic freedom to mean that the whole question of what a university ought to be and to do and what service it ought to render to the community is entirely a matter for the internal consideration of individual universities. We have been inclined to regard any questions or criticism from outside as a threat to our independence which ought to be resisted. But I think there are signs that the rest of the community, to which we look so largely for support, may not be content to go on indefinitely taking us at our own valuation. Nor is it at all clear that they ought to do so. We certainly ought to be prepared to listen to criticisms and to answer questions from outside. We must recognize the dangers of this. But the dangers of refusing to listen are greater still. It might lead to compulsory interference by the representatives of the rest of the community in our affairs. Or, what is perhaps more likely, it might lead to the establishment of other institutions to carry out the services which the universities could but did not perform, till the universities at the end were left high and dry, out of all touch with the rest of the national life. But in any case, I suggest that the universities might be well advised to evolve an organ which could concentrate their own thinking on these problems, and consult about them with the rest of society on something nearer equal terms than individual institutions could possibly achieve.

—THE UNIVERSITIES REVIEW.

II. TEACHERS AND VOLUNTARY SERVICE

(Extracts from the Presidential Address of the National Union of Teachers, England)

The work of teaching has undergone a vital change. The responsibility for instruction in its more restricted sense still remains, but much has been added. Attempts have been made to meet the growing needs of modern life—voluntary efforts have been undertaken to increase the value of the school to the pupil and to the community. As well as being an institution for instruction, the school has become a centre of social activity. The work of the teacher is now a great social service.

As to how far a change of this nature can with advantage proceed, it is not easy to dogmatise. The work of the school stands related to the growing and expanding life of the community. There is nothing static or final about the functions which it may legitimately be expected to perform. But there are natural limitations to the maximum advantages attainable by the expenditure of a given amount of time and energy, as well as physical and psychological limitations of capacity, related to juvenile and adolescent life. These must be recognised in regard to both teachers and pupils. Relative values establish themselves—purposes stand revealed as of greater or lesser importance. Too comprehensive a demand upon the schools may involve ultimate sacrifice and loss. Requirements extraneous to the main purposes of education must not be imposed. A wide range of freedom to select or to reject must be permitted to the teacher, or the performance of his work will become an intolerable burden, instead of a self-renewing opportunity of service for the public good.

To be effective to-day it is necessary for teachers to add much to their normal educational equipment. The new demands entail co-operation with all kinds of people who impinge upon the school from outside—directors, inspectors, (national and local) organisers, doctors, nurses, policemen and social workers of many types. The work has been going on quietly. The community as a whole has been largely unconscious of what has been taking place. The great majority of men and women envisage a school as they knew it in their own childhood. But the change has taken place and as a consequence a new public attitude towards the teaching profession is called for. Most of the extra work has been accepted cheerfully by teachers as a whole, the more so because in many of its aspects it has been undertaken voluntarily. This fact cannot be stressed too much. There is a tendency on

the part of some authorities to seek to impose extraneous duties, and to secure by regulation and compulsion service that is much more cheerfully rendered when it is given freely and spontaneously in the natural performance of the work of a teacher. A fuller understanding of the activities of a school would lead in some instances to an easing of the burden, which is sometimes imposed as in the case of head teachers in schools of considerable size, who in addition to their normal duties, have to accept the full responsibility of class teaching, to the disadvantage of the whole staff and to the detriment of the school. There is danger, too, in the over-organisation from outside of particular subjects by supervisors, organisers and inspectors. The teaching profession objects, and objects rightly, to a multiplication of overseers and taskmasters and they are beginning to look askance at the growing insistence on the appointment of people whose duty is to advise rather than to engage in the actual work of teaching. The internal working of a school is best controlled from within, cooperatively guided by the experience and skill of all the teachers engaged. External pressure tends to destroy balance and harmonious efficiency.

During the last twenty-five years an extended freedom in the schools has gone hand in hand with educational advancement. These are but first steps forward. Increased knowledge and growing control of natural forces hold promises of wider possibilities in the content of human life than past generations have ever known—possibilities of good—gigantic possibilities of evil. The future destiny of the race depends in large measure upon the preparation to meet the new demands of life afforded to coming generations in the schools. The teaching profession realises and accepts the responsibility involved. It asks for adequate conditions and a reasonable measure of freedom to work in close co-operation with all branches of the education service for the good of the nation and of mankind.

THE SPIRIT AND PROGRESS OF EDUCATION DURING THE 16TH CENTURY

BY

DR. S. L. BHATIA, D.Sc.,

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During the Renaissance the movement in spite of its success, was more or less a failure as an educational idea, as it failed to satisfy the new and ever increasing needs of the society. The aim of education according to the new spirit was definitely in terms of language and literature instead of in terms of life. As such the need for a better system of education which could satisfy the rising commercial democracy was more and more keenly felt. The old scheme being purely individualistic and aristocratic, gradually faded and was replaced by a system which had a message for the working masses. The two outstanding personalities who were responsible for taking this forward step towards the onward march of education, during the greater portion of the sixteenth century, were Sir Thomas Elyot (1490—1546) and St. Ignatius of Loyola (1491—1556).

Thomas Elyot was a great English Diplomat and Scholar. The exact date and place of his birth are, however, unknown. In his autobiography Elyot has stated that he was educated at home, and became a teacher at the age of 12. In 1511, he accompanied his father as a clerk of assize on the Western circuit. Later with the help of Wolsey he became a clerk to the Privy Council, and got his title of knighthood in the year 1530. During the same year he produced his famous and popular book 'Governour.' This book was dedicated to Henry VIII and is a treatise dealing with moral philosophy for the education of princes. Four years later, he produced another book 'Castel of Helth.' This was a popular treatment of medicine. It is said that the book was much ridiculed, but all the same, it was very widely read by the public.

Of special interest to education is his book on the education of children, which he wrote in the year 1535. The popularity

and the value of the work can be judged by the fact that Elyot has as many as a dozen translations to his credit.

Regarding the education of children, Elyot maintains the following outstanding views:

1. Great care should be exercised in the choice of a nurse for the child in order that he or she may not assimilate evil in any form in infancy.
2. No force should be used in educating children. They should be handled rather sweetly, and got into the spirit of studies with praises and such pretty gifts as children delight in.
3. At seven years of age the pupils should be withdrawn from the influence of nurses, and put in charge of a tutor; whose duty should be to understand the nature of the pupil, and who should be responsible for bringing about a harmonious development of body and mind.
4. Children's faculties of music and fine arts like painting and carving should be similarly excited.
5. Great emphasis should be laid on 'Dancing' as a necessary accomplishment for children. Dancing as a pastime or hobby is not only conducive to health, but plays a definite rôle in the training of pupils to intelligence and prudence.

All these ideals of education were included and dealt with in detail in his 'Governour.' He also maintained that children taught according to those ideals, would be best suited to be men in Power and Authority. They will be honest and noble, and will be held in great love and esteem by those on whom they wield their influence. Such men will indeed be the jewels of Society.

St. Ignatius of Loyola (1491—1556) was the founder of the Society of Jesus. He was born on December 24, 1491 at the Castle of Loyola in the province of Gutpuzcoa. At an early age he was sent as a page to the court of Ferdinand, and later followed the career of arms. In this capacity, he gave indications of courage, constancy, prudence and political ability.

During the French attack in 1521, he was wounded, and lying in bed as a convalescent he read the life of Christ by Ludolphus of Saxony. This was the turning-point in his life, and changed his mind from worldly to heavenly and spiritual things. So great indeed was the effect of that book and of other books

for Loyola. He came in contact with some of those prominent people who were eventually to become the leaders of the Society of Jesus. Seven of his companions and followers undertook to do social and religious work with him.

In the autumn of 1535, Loyola was called back to Spain. On his so-called tour he was all along doing propaganda for his companions. His companions too did not forsake him, and after staying in Paris for some time, they too arrived in Venice. A voyage to Palestine was arranged for which the necessary money was collected. Though the proposed voyage was not undertaken, the companions now formed a regular society, with Loyola as their head. They centered their activity in Rome, and the life of Ignatius was mainly identified with the formation and growth of the Jesuit Society. Loyola founded institutions for receiving fallen women, started orphanages, and organised catechetical instructions. The Society obtained the official recognition on the 27th of September, 1540.

Loyola's book entitled "The Book of the Spiritual Exercises," which he had undertaken to write while he was still at Monterrerrato, also appeared. This book is known to be one of the world-moving books. The Society made great progress during the lifetime of Loyola. For our special purpose we are mainly concerned with that part of the Society, which was connected with the development of Education. The aim of the Society was the attainment of moral reform through Higher Education; primary instruction was not much cared for on account of dearth of teachers. In general the intellectual scope proposed by Loyola was distributed over two stages: (a) the Public School and (b) the University. The special advantage of Loyola system over the older system is described by Ribadeneira, the intimate friend of Ignatius, in the following words:

"Elsewhere one professor has many grades of scholars before him, he addresses himself at one and the same time to scholars who are at the bottom, midway, and at the top, and he scarcely meets the demands of each. But in the society, we distinguish one rank of scholars from another dividing them into their own classes and orders and separate professors are placed over each."

Some further peculiarities of the Intellectual scope as proposed by Ignatius are summarised as follows:

1. The longer term of intellectual training is meant only for the talented few. For ordinary people a simple and a smaller course is about the best.

2. Loyola attributes a special importance to class prizes as a means of stimulating love for studies in the young minds. From this has probably originated the modern system of Annual Prize Distribution in the educational institutions. This promotes a healthy sense of rivalry and competition.
3. Loyola's system prescribed an education, which is public—public as being that of many students together, public as opposed to private tutorism, public, in fine, as requiring a sufficiency of the open, fearless exercise both of practical morality and of religion.
4. The teachers employed for the purpose of education should be men of high intellectual attainment. They should also be endowed with paternal affection in order that they may be able to win the youthful hearts.
5. A Common Library should be maintained in each College, and kept in charge of a responsible person selected by the Rector.
6. Trained Teachers especially should be employed for the teaching of the lower classes.
7. That the so-called Rector of the School or College should always keep in touch with the difficulties of the teachers, and try to solve them in the best possible manner, and thereby ensure that the Scholars make the greater possible progress in virtue, the Arts, and the Sciences.
8. Mere lecturing to the boys was not considered to be enough. After the lecture was over, the teacher was expected to devote some time in the company of boys in order that the students may interrogate him about the substance of the lecture.
9. All students, rich and poor, must be treated equally by the teachers. No favours should be shown to anybody.
10. Class Promotion should be given at any time during the year after examining the boys' intelligence and capacity for work, and not rigidly at the end of the year as is done these days.

Judging from the above account of Loyola's activities and Reform in the system of education, it is no exaggeration to say that Ignatius was the first man to evolve a most methodical system of educational organisation, and management, as well as to make the education uniform and universal.

It was more or less allied to the modern school system, which has taken such a long time for perfection.

Ignatius of Loyola always worked harder than his health permitted. Continued hard work rendered him very weak. In the beginning of 1556 Ignatius grew extremely weak and was unable to look after his duties properly. He was therefore more or less forced to resign the active Government to their fathers, Polanco, Madriol, and Natal. He was laid down with fever, and died somewhat suddenly on the 31st July, 1556. Truly, he was one of the moral heroes of humanity.

questioning attitude is what teachers are after, not the particular interrogatory sentence.

4. *Better two poor text-books than one good book.* Text books are becoming better, and many teachers say: "Why bother with supplementary reading when it is impossible to cover all the rich material in our own text?" The answer is that the major outcomes of social studies teaching are dependent on the use of various types of printed material. The best text imaginable taught by the best teacher would fail to secure over one-third of the outcomes which are expected from the social studies. On the other hand, it might be possible to secure very good results from the use of two rather poor text-books, differences of interpretation, of emphasis, and of selection of evidence being used to develop critical attitudes and skills in the use of evidence.

5. *History requires much less abstract memorization than any other subject in the curriculum.* In the sciences, English, mathematics, and other languages, there are many facts that must be memorized abstractly, without the aid of natural associations; a sheer act of memory is required. History, on the other hand, presents a connected story. It requires rote memorization no more than does trying to recall what you did on your last birthday. The sequence of events makes of history a sort of collective past to supplement our individual past. When pupils get the continuity of the thing, there is no reason why they should have to memorize dates by repeating over and over a series of numbers. In fact, so far as I can see, history is the only subject in which there is no need for the exercise of abstract memorization.

6. *The poorest place for a "wall map" is on the classroom wall.* The map should be used, not in recitation, but in the study or laboratory period, and the best position for use is not on the wall but flat on a table with north to the north and south to the south. If geographical data are needed in connection with the presentation of material, a sketch map on the blackboard, made by teacher or pupil, is much more effective than the usual search-and-jab process with pointer and wall map.

7. *The best way to learn about the present is to study the past.* Ostensibly, it seems to be good pedagogy to proceed from the present, which is presumably known and real to the pupil, to the past, which is comparatively unknown. Actually, however, to do so violates a fundamental pedagogical principle by proceeding from the complex to the relatively simple. To secure the answer to our present problems, we can no more work backward step by step than we could use such a process in solving a problem in arithmetic or algebra.

Another consideration in this paradox is that when the present problem in society becomes acute the stage of propaganda has already set in. The emotional element has so entered the equation that a sane start is almost impossible even if we could work backward from contemporary spoken and written words.

8. *Nothing is so out of date as the latest news story.* This is a truism that every social studies teacher should ponder. A European crisis displayed on the front pages of the newspapers may be an epoch-making incident or it may be wholly insignificant, or even a false alarm. There is, however, a vital modern significance in a study of the formation of the Constitution or an examination of the principles of Jacksonian democracy which is certain to be important to the pupil in the future as well as in the present. There are certain constants in the equation, and these do not depend on what is news today.

9. *Finishing and polishing done by the teacher often undoes practically all the good that has been done.* Good work by pupils in the social-studies laboratory, or in a discussion group, is often ruined by the teacher's desire to summarize and repeat the findings of the class. Nearly all teachers have an almost uncontrollable tendency to say the last word. They feel that they must state in the best possible words the final impression which is to remain with the pupils. But it is better by far to leave some misunderstandings in the mind of the immature citizens than to do the final and most important act of thinking for him—the crystallization of conclusions. As teachers, we must realize that the process the pupil undergoes is more important than the factual information he receives.

10. *Teachers usually penalize the pupils for practising the principles that are desired as outcomes of social-studies teaching.* What is the worst crime that a pupil can commit? In many schools, I am afraid that it is cooperation. That is, teachers condemn so-called "copying" as a decided moral lapse. The whole marking system is ruthlessly individualistic and develops the most anti-social traits. The system induces the pupil to try to please the teacher and guess what the teacher wants, wholly ignoring any responsibility he may have to the group.

It is nearly always apparent that children are talking to the teacher and listening to the teacher. They are encouraged to be self-centered and selfish. Few rewards are offered for aiding the weaker brother. Pupils are not taught to respect the opinions of their classmates, and they learn little about democratic procedures.

All these haphazard comments merely indicate that teaching is an art and not a trade. Many teachers—many techniques. There is no one right way to teach anything. The matter of method deserves much more profound and critical attention than the average teacher in training is willing to grant it.

—THE EDUCATION DIGEST.

FILMS AND SCIENCE

BY

SHEIKH IFTEKHAR RASOOL.

The problems of educational reconstruction in our time are as urgent and as singular as those of the Protestant reformation. The material circumstance which contributed to the great intellectual enlightenment of that time was the invention of a new instrument for diffusing human knowledge. In our own task of making the world outlook of science an open Bible we have at our disposal instruments which transcend the limitations of oral discourse. It is commonplace to say that the cinema has placed *new powers in the hands of the educationist but few educationists* have really grasped what its new powers are. So far the cinema has largely been canvassed as a way of stimulating interest or of conveying in a more vivid and palatable form information which is less attractive when communicated through the medium of print. What we have still to realise is that it can explain many things which many people can never understand at all, if they have to rely on the printed word.

Mathematics.

The greatest difficulties both in mathematics and in those branches of science which rely on mathematics do not reside in failure to assimilate the rules of symbolism. More often they reside in failure to visualise the physical construction, model, or process which the symbols describe. Cinema can bridge the gulf which now separates people who have a good visual imagination from those who have not.

Dynamics and astronomy are not difficult because they make use of difficult branches of mathematics. To the person who finds them difficult they are equally difficult when the mathematics used is of the simplest kind. The limitation imposed upon the communication of knowledge by the printing press is easiest to see if we consider the implications of a well-known class of optical illusions. We all know what happens if you draw a cube in perspective with twelve straight lines and then stare at it for some time. After a little while it seems to turn inside out and this happens repeatedly if you go on staring at it. Although this class of optical illusion is commonly mentioned in text-books of

physiology and experimental psychology, little if anything has been said about its bearing on education. Every teacher knows perfectly well that many children who can acquit themselves passably in plane geometry experience very great difficulty when they come to solid geometry. There is an inherent ambiguity in flat representations of three-dimensional objects. The longer you go on looking at them the more perplexed you get.

The experienced teacher knows that a little play with plasticine and knitting needles will often surmount the first difficulties of visualisation at this level. What the model does for the three-dimensional object the cinema would do for the four-dimensional process. Simple harmonic motion, the precession of the equinoxes, the relation of celestial and terrestrial co-ordinates of a star, wave motions, the trajectory of a body projected in space, are themes which present insuperable difficulties to a large number of people. They bristle with problems for the teacher, even if he only has to deal with pupils who have a tolerable aptitude for naturalistic studies. With the resources of stereoscopic cinematography, I believe that a few hours would suffice to overcome visual difficulties which now defeat the ingenuity of the teacher and at best absorb weeks and months of time and effort.

Biology.

Similarly the film has certain properties which make it invaluable in a subject like biology.

It can make a record of scenes which most people would be unable to visit, such as remote colonies of sea-birds, or wild-game in Africa; and of events which need to be waited and watched for, like the special methods adopted by some birds for feeding their young, or the liberation of medusae from a hydroid colony.

Under expert direction, the confused events of reality can be arranged into a logical and artistic sequence, as in a book, but with direct visual appeal. A casual visitor to a bird-colony would not grasp the significance of most of the events that he saw; an amateur naturalist at the sea-side would not obtain a connected picture of the ecology of rock-pools or sand-flats. In this connection the possibility of using micro-cinematography in conjunction with ordinary cinematography is of special importance in biology.

The film, by means of its independence of time, is capable of giving a direct realisation of processes that are too fast or too slow for the eye. A humming-bird's flight, which we perceive as a mere blur, can be analysed by slowing-down; and by speeding-up, a long and complex sequence of events can be grasped as a single process. The last technique is of great value in biology, where

the study of development is so important. With its aid processes such as cell-division or early embryogenesis reveal new points, even to professional biologists.

Where photography cannot be used, moving diagrams can be employed in a similar way. The essentials of fertilisation and heredity can be presented with extreme vividness by this means. Again, by replacing the various portions of a photograph in turn by labelled drawings, anatomy may often be better demonstrated than by a single diagram, as in a text-book.

Certain types of demonstration can be more effectively shown on the screen than in reality. This applies, for example, to the dissection of small animals.

The main objections raised to the use of films in education are that they encourage a passive instead of an active attitude in those who are being taught, and that they attempt to usurp the functions of the teacher. In this latter respect, however, the film is precisely on a par with the text-book. If a film attempts to usurp the function of the teacher, it is a bad film. A good film may relieve the teacher of certain burdens and difficulties, but it should and can provide abundant material for the teacher to use. With regard to the charge that films encourage passivity, this again is only true of bad films. Films can stimulate wonder, excite interest, or provoke curiosity; and such films will be educationally of value. This function of films is prominent in biology, with its wealth of unfamiliar and often microscopic material.

Physics.

In the teaching of physical science the cinema film owes its value to the same basic properties as in other educational applications. The instructional film is an adequate substitute for the physical presence in the classroom of rare, expensive, very large, very small or very fragile apparatus. In the demonstration of processes it gives a wide control of magnification and of time-scale. It permits collective and simultaneous viewing which would otherwise be impracticable. It offers, as stimulants to interest and memory, the dramatic devices of repetition, contrast and intercomparison; and it vivifies the applicational aspect by showing full scale operations in close relation to basic processes.

In the physical and geographical sciences there is exceptional scope for the use of animated diagrams and models, especially in the realm of mechanistic representation of non-visual phenomena. The radiation from a wireless transmitting aerial and the motion of isobaric systems may be taken as examples of this kind. In

geophysical teaching the cinema mitigates the difficulties of representing rare or remote natural phenomena—for example, unusual cloud formations and tropical or arctic phenomena. In the mechanical sciences the particular application of the cinema as a recording stoboscope is of high educational value.

Agriculture.

Practical agriculture and agricultural science both utilise, either directly or indirectly, most of the arts and sciences. Since the industrial revolution an increasing proportion of the population has lost touch with the land and indeed with the life and outlook of the countryside.

These considerations clearly show that there are many directions in which films can be of service to agriculture. The instructional such as the 'Secrets of Life' series, can assist those concerned in teaching scientific agriculture. 'Documentary' films are of great value for recording survivals of older agriculture methods and present-day changes.

The inclusion of these films, specially edited, if necessary, in public cinema programmes serve to bring the countryside and its interests before the town-dweller, and helps to re-establish understanding between them.

THE TEACHING OF CONTROVERSIAL SUBJECTS

BY

WALTER E. MYER.

Teachers interested in realistic political education are likely to find that the teaching of controversial subjects involves many difficulties. Though it is generally recognized among educators that the issues of life cannot well be dodged if students are to be given an effective training for citizenship, there is quite a little opposition to the practice of acquainting students with vital conflicts of opinion. And even though it be conceded that instruction in controversial subjects is desirable, there is confusion and disagreement about the most acceptable procedures.

Opposition to a realistic study of contemporary problems involving disputed points comes from within the school as well as without. There are teachers of the social studies who argue that discussion in the classroom should be confined to well-tested and universally accepted truth. Students, according to this theory, should learn facts and should not be concerned with uncertainties. They should learn of the events of the past. They should study the accepted rules and facts of economics and civics. But they should not spend their time on unestablished theories.

The trouble with this theory of teaching is that it cannot be practised successfully in the social studies without emasculating them. If we waited for absolute certainty, we could not do much teaching. Few important developments of history are so completely understood that they can be lifted out of the realm of the controversial. Certain familiar assumptions and presumed facts appear to be true only because they have been so oft repeated. For over a hundred years we repeated in our history texts the assertion that America won the War of 1812. That was a "fact," which we might freely teach! Yet what assertion made today about a controversial question of 1937 could be more highly controversial? And what is truth with respect to the French Revolution? External events may be described, but the most significant material for study with respect to the French Revolution relates to causes and effects, and when one undertakes nearly a century and a half after the events to explain causes and effects,

he is on as definitely controversial ground as if he were explaining the political landslide of 1936 in the United States.

But even though truth might be accessible after the lapse of years, we cannot wait so long for a revelation. If the schools are to say that they are not sure enough of their ground to teach the facts relating to the controversial questions of the present, they are confessing failure in the training of citizens. For citizens, let it be remembered, cannot wait for years to discover the truth. When confronted by a Townsend Plan or a Share-the-Wealth movement, they cannot say, "We must wait 50 years so that we can be sure of our ground." The citizen must act at once on the best available evidence. He may make mistakes, but he must decide quickly, taking shots at public questions on the wing.

The question which educators must answer is whether the schools will train young citizens to come to grips with these swiftly moving problems. Will they teach citizens to deal effectively with controversial questions by giving them supervised practice in that activity? Or will they stand aside, shaking off responsibility and allowing untrained citizens to deal with the great problems of the public life? Will the school, by its own policy of inaction, encourage its students to stand helplessly by when faced by the problems which really count?

The teaching of controversial subjects in the schools is supported on the ground that in no other way can a student be trained to become an effective citizen. The reason is that the really vital questions with which a voter must deal are of the controversial variety. Imagine an individual who holds views only on matters concerning which there is no dispute and who fights only for causes about which all are agreed!

Everywhere the citizen finds dispute, advertising, propaganda, prejudice. If he has learned to stand on his own feet in the face of controversy, to examine the different sides of a dispute, to choose his materials, to evaluate arguments—if he has learned these things in school—he stands a good chance to act independently and in the public interest. If the school has trained him for actual work of dealing with controversial questions, it has helped to make him a good citizen. But if it has dodged the very problems which he must meet and has dealt only with platitudes and generalities, all it did for him will amount to exactly nothing. If civic training in the school does not include practice in working with controversial issues and in handling them independently and sensibly, it might as well be omitted from the curriculum.

It may be argued that if one does not gain practice in the balanced consideration of public issues in school, he will get it elsewhere. Just where will he get it? From the newspapers? From street-corner conversations? From the radio or the movies? Does the average adult, as a matter of fact, show himself to be so immune to propaganda and special pleading as to suggest that he has never stood in need of intelligent, public-spirited, and impartial training in the analysis of issues, in the sifting of alleged facts, and the evaluation of opinions?

When opposition to the teaching of controversial subjects comes from the community rather than from within the school it is usually based upon the presumed dangerous effects of such teaching upon the minds of the young. In order to shield young people from possibly subversive notions, some individuals are willing to keep them from contact with all controversial questions. But it cannot be done. Every individual who has learned how to read gets an introduction to the issues, programs, and theories which are afloat in the land, whether we wish it or not. He knows that there are Republicans and Democrats; liberals, conservatives, and radicals; high tariff advocates and low. He even knows there is such a thing as communism. Even if all such matters were excluded from the school, they could not be excluded from the newspapers, many of which are sensational and irresponsible. They could not be excluded from agencies of propaganda, most of which are prejudiced and lop-sided, and some of which are vicious. One gains impressions of controversial issues from sources both open and subterranean. No youth can be shielded from them. The only question we have within our power to answer is this: Shall the boy or girl receive his education on controversial matters exclusively from these outside, uncensored sources, or will he supplement such education by formal training in the school? Will he be allowed to study the different points of view, the issues, the "isms" in the classroom, where there is at least an intelligent attempt at scientific method, where he will be taught to select material, to see different points of view, and to criticize the sources of information?

Teachers, of course, have a responsibility which they must respect when they teach controversial subjects. They must refrain from the attempt to influence opinion. When they take up a disputed point they must first see that the admitted facts are understood. When they reach the place where there is a divergence of opinion, they should see that the conflicting points of view are clearly and fairly presented. There they should stop. There they *must* stop if they are to prepare their students to be

independent, to weigh facts, and to decide things for themselves in the light of evidence.

But, someone may ask, do the schools really give the sort of impartial information which has been described? Do teachers, as a matter of fact, teach students to stand on their own feet, or do they seek to indoctrinate the young people—to impose their own views? Can teachers be depended upon to be fair and free from propaganda? The answer is that we do not get 100 per cent impartiality in the classroom, but we get a closer approach to it than can be found anywhere else. Practically all school authorities insist that teachers present issues factually and subordinate their own notions.

The public has a right to insist that teachers and texts be free from indoctrination and propaganda. But in exercising this right, the public should be prudent and restrained. A teacher or text should not be condemned for an occasional slip or for the most injudicious comment which can be discovered. Each teacher, like each public leader and each personal friend, should be judged by his total contribution, his general day-by-day influence. Too great laxity may lead to abuses, but so may a censorious, prying disposition to discover minor errors and to make mountains of them.

Democracy will be safer if its young citizens are well equipped with facts relative to all the big problems of the public life. The citizen who opposes communism or fascism can fight these systems better if he knows what they are than if he speaks of them in ignorance. And if it be argued that one may be ensnared as he studies conflicting forces; if it be said that he is more likely to accept wrong notions than right as he pursues truth honestly and fearlessly, the answer is that such timidity is a betrayal of the democratic faith. Democracy is based on the assumption to which lip service is so often given, that in the free interchange of ideas truth is more likely than error to emerge the victor. The exponent of democracy must not lose faith in his mighty battle cry, "Ye shall know the truth, and the truth shall make you free."

—THE JOURNAL OF THE N.E.A., U.S.A.

PRIMARY EDUCATION IN INDIA

BY

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While India is faced with an epidemic of closed schools for lack of funds Mr. Roosevelt, the American President, has asserted again that the highest duty of any Government was to order public affairs so that opportunities for youth were made ever broader and finer. "The School," he said, "is the last expenditure upon which America should be willing to economise."

Turning to Asiatic countries we find that in Japan Compulsory Education was extended to Six Years in 1909, the previous period having been four years. In 1916 the Educational Council recorded a Resolution which approved the extension of Compulsory Education from Six to Eight Years. The present Education Minister has decided to press the point with a determined will even though there are heavy and pressing demands upon the National Exchequer from other Departments. Since the poorer families would be considerably inconvenienced, as the scheme would deprive them of the wages which the younger members of the family begin to earn soon after leaving school, the Education Department contemplates giving financial aid to such families to enable them to buy text-books and clothing for the children.

The Egyptian Government's Programme of Compulsory Education for children of school-going age which has just been announced, begins from January 1937. Nearly 1300 schools will be constructed all over Egypt for accommodating one and a half million boys and girls.

Even China seems of late to have arisen from her stupor. The efforts she has been making in the direction of fighting illiteracy among her people are worthy of emulation. Half the population of Nanking, the capital of China, are now illiterate. Students will henceforth be allowed to graduate only on condition that they will help to educate the masses. Shop and Factory-owners will be liable to educate their employees. To crown all, all Chinese residents unfamiliar with a particular primer will have to pay a fine. The measures are stringent no doubt. But the disease of illiteracy requires such drastic measures.

In India—where there are more than 8 millions of boys and 13 millions of girls without instruction—in the face of our gross ignorance, hard-pressing poverty, lack of competition and the absence of sufficient stimulus it is a colossal mistake to suppose that Primary Education, if made Voluntary, would achieve its purpose.

To take stock of the situation in India I give below a survey of the conditions prevailing in different parts of the country during 1936 so far as Primary Education is concerned.

Bengal.

The Government of Bengal in the Ministry of Education appointed a Committee to consider the curricula suitable to the needs of primary schools and maktabas and the question of religious instruction in these institutions. In their Report which was submitted in December last the Committee have recommended a Four-Year Course for financial considerations although they felt that a Five-Year Course was educationally desirable. They are of opinion that there should be no difference in the curricula either for boys or girls or for rural and urban schools. English has been included as an optional subject. History is not recommended as a separate subject but its inclusion as a part of Vernacular reading and writing in the shape of stories is suggested. Rural civics, elements of science, games and physical exercises and handwork are welcome additions. As regards religious instruction, two separate curricula, one for Hindu and another for Muslim boys, are recommended. In the Report on Public Instruction in Bengal for the year 1934-35 it is remarked that approximately 70 per cent of the students never reach Class IV or V and that they relapse into illiteracy after one or two years of study in Primary schools. It is the intention of the Government of Bengal to bring the Rural Primary Education Act into force before long in selected areas where the economic position of the people and the strength of local feeling on the subject are such as to warrant expectations of a favourable development. The District of Mymensingh is fortunate in getting the first preference. The Working Class Education Board of Calcutta made provision for training the labour workers and strengthening the working-class movement.

Interesting details are available as regards the results of Compulsory Primary Education introduced in schools in Ward No. 9 of the Calcutta Corporation.

The establishment of the Jitendra Narayan Nursery School for the training of Pre-School children has removed a long-felt

want. In addition to the usual Nursery training children are given free mid-day diet which includes milk and fruit.

The formation of a Provincial Committee placed the All-Bengal Primary Teachers' Association on a firmer basis. The Government of Bengal is to be congratulated for setting up an Advisory Board for Women's Education in the Province.

Madras.

The Provincial Economic Council constituted by the Madras Government was engaged in examining the question of introducing Compulsory Education in the Major Panchayat areas in the Presidency, besides other matters such as the revision of the school curriculum. If as a result of its deliberations and recommendations, the scheme materialises, the next step in the progress of Elementary Education will have to be taken. Meanwhile officials of the Education Department and teachers employed in several schools maintained by the Corporation of Madras have been making house-to-house visits in the City to take a Census of school-going children, boys and girls, who have not been attending schools.

A scheme of Compulsory Elementary Education has been introduced in the Nellore Municipality and all pupils of school-going age have been brought under instruction. Compulsion is yet to be introduced in rural areas.

The scheme was also to be introduced at Kumbhakonam from January last. The proposal of the D.P.I. for the introduction of a scheme for the economic development and improvement of rural areas was being tried. Four centres were selected at Kovur, Kaluvoya, Vinjamur and Rapur, for the introduction of the scheme, in view of there being scope for the development of vocational education in these centres, the majority of the population being artisans.

With the recent amendment of the rules for recognition and aid making it obligatory on the management to throw open their institutions to pupils of all communities not excluding those of the scheduled castes, it is expected that people will avail themselves of educational facilities in still larger numbers.

U.P.

The U.P. Government sanctioned the introduction of Compulsory Primary Education for girls of ages between 6 and 11 years and in the case of Muslim girls between 5 and 9 in areas under the District Board of Etawah. This is the first District Board

whose scheme has been sanctioned by the Government under the District Boards Primary Education Act.

Regarding the working of the Compulsory Education in the Municipalities in the Meerut Division we come across the following official remarks:

‘Confining oneself strictly to the actual working of the scheme, the number of children escaping compulsion and those stagnating in lower classes one can safely say that the scheme has not met with any appreciable measure of success.’

Statistics show that out of every 100 children in the Infant Class only six pass in Class IV.

The general apathy of the parents towards education, their poverty and the general inattractiveness which characterises the teaching in the Municipal Board Schools are regarded as the main factors responsible for this.

The establishment of an Employment Board by the Government on the lines suggested by the Sapru Committee is a step forward in the right direction.

Bihar.

The outstanding event of the year was the issue of a Circular by the Primary Education officer with the approval of the Government in which a formal system of recognition has been introduced. Government are pleased to note that the effect of the new rules has been to stimulate local effort for the improvement of the existing schools. The cut in the grant to Local Bodies has been restored in full and advantage has been taken to ensure that the ‘Gurus’ employed in Primary Schools are paid properly.

The Government of Bihar in the Ministry of Education cancelled their previous order withdrawing the powers of administration of Education from the local board, Madhubani.

Orissa.

An Education Committee consisting of officials and non-officials was appointed with the D.P.I. as the President to consider particularly the proposals made by the Central Advisory Board for the reconstruction of the educational system of the newly created Province.

C.P.

The Nagpur Municipality decided that ‘Bandemataram’ and ‘Jindabadam’ songs should be compulsorily recited in all municipal Hindi and Marathi schools everyday before the

commencement of daily instruction. Besides arranging to give the municipal sweepers primary education provision is being made to have a Physical Instructor to train 100 sweepers in Scouting.

Delhi.

After studying the question of introduction of compulsory education in New Delhi, Jungpura and Nizamuddin, the New Delhi Municipal Committee has decided to enforce compulsory education in New Delhi which will for the present be introduced in a specific locality in the municipal jurisdiction and one school for the purpose will be opened.

Burma.

The Vernacular and Vocational Education Reorganisation Committee submitted its Report and they suggested among other things the following:

1. That the system of A.-V. and English Schools be placed on a statutory basis and together with the Vernacular Schools should constitute a single system.
2. That the Public Service of Education be governed by a specific consolidating Education Act and a Statutory Board of Education.
3. That there should be a survey of the existing education provisions to make plans for 5, 10, 15 years.
4. That the minimum age of 6 years be fixed for admission to schools.
5. That the Primary Department of schools should consist of standards I to V for children of the age of 6 to 11 years.
6. That only vocational bias and not vocational Instruction should be attempted in Post-Primary Schools.

The Committee also recommend augmentation and better recruitment of the inspectorate, reconstitution of Education Committees and provision for more adequate protection for the teachers against wrongful dismissal.

INDIAN STATES.

Hyderabad.

Apprehensions that the Compulsory Primary Education Bills introduced in the Hyderabad Legislative Council, will

directly cause an increase in the problem of unemployment are expressed in a statement by the Hindus and the Muslims. The signatories state that owing to education the public are anxious to enter Government Service, and if any scheme of Compulsory Education be enforced the number of the unemployed will swell. Agriculturists and other tradesmen who are attending to their work now without joining government service will in consequence of the scheme give up their traditional professions in their desire to enter government service. In order, moreover, to introduce the scheme a sum of rupees two crores will be found necessary every year; and if an additional cess is to be levied on the public it will only lead to greater poverty of the people. The signatories further observe that a hungry person is not in a position to appreciate the benefits of education, however valuable they may be. It has been found that the present curriculum of studies is not suitable to the requirements of the State and compulsory education based on that particular curriculum will add to the futility. The statement further states that the school-going age should be raised from 6 to 9 which has been suggested by the movers of the Bills. If any scheme of Compulsory Education is to be introduced at all the recommendations of the Mackenzie Committee with regard to the reorganisation of education in the Dominions should be first put into use and tested for a preliminary period of about 10 or 15 years.

Cochin.

The Select Committee appointed by the Cochin Legislative Council to report on the Free and Compulsory Education Bill met and took evidence from almost all important persons.

The objects and reasons of the Bill are that Universal Primary Education is one of the foremost duties of the State for, to quote the language, 'the capital of a country does not consist in cash or paper but in the brains and bodies of the people who inhabit it.'

Travancore.

The question of introducing a broadcasting scheme for Travancore as a means of Rural Education and Reconstruction has recently been receiving consideration and it is understood that the State Government have directed the Chief Electrical Engineer to meet the Chief Engineer for Broadcasting with the Government of India and discuss with him the various aspects of broadcasting in Travancore.

We are now on the eve of great Constitutional Changes likely to usher in a new era in the administration of the country and the electorate will be expected to play some considerable part in this regime. That the emancipation of the masses from illiteracy is a prime condition of self-defence, self-reliance, self-help and of self-government and of the promotion of Industries and Agriculture is a fact recognised by all civilized States. In an agricultural country like India universal education is of importance for introducing improved agricultural methods and for improving the condition of rural life. It is also a fact unquestionably recognised that without the spread of education the mass of the people cannot be expected to exercise intelligently and judiciously their rights of Citizenship.

But apart from the meagre facilities offered at present to our children the lack of thorough grounding in our elementary schools tends to vitiate every subsequent stage of education by forcing the Secondary and Continuation schools to waste much time on elementary work. The soulless cramming that characterises these schools in our days of payment by results should be forthwith discontinued.

The ideal arrangement would be that the Nation rather than any local or subordinate body or authority should make itself ultimately responsible for it, and exercise over the whole system a firm control, so that comfort and freedom as well as security may be guaranteed by the Nation to all those who are engaged in what is obviously the first and widest of Nation-Building Activities.

REVIEWS

Handbook of Suggestions for the Consideration of Teachers of Public Elementary Schools. Published by His Majesty's Stationery Office, London. Price 2s.

This is a revised edition of the Handbook of Suggestions with which many teachers must already be familiar. The changing conceptions of education have necessitated a revision of the book, and the revised edition is a considerable improvement on the previous one. The editors remark: "We realise more and more the importance of broadening the aims of education and of placing greater emphasis on the social development of children; we appreciate more thoroughly the value of space and of activity in securing and maintaining their health and vitality, and we feel more deeply the need of relating what is taught in the schools to what is happening in the world outside." The editors have throughout kept in view the high aims of education in planning this volume. In it, there is valuable information regarding the pupil, the school and the subject-matter of instruction. The General Introduction deals with the school child, his development, his reaction to his surroundings and his preparation for full membership of a modern community. Pt. II deals with the three stages of the Public Elementary School System and Pt. III with the separate branches of the curriculum.

The function of the school according to the Handbook is ' (1) to provide the kind of environment which is best suited to individual and social development; (2) to stimulate and guide healthy growth in this environment; (3) to enable children to acquire the habits, skills, knowledge, interests and attitudes of mind which they will need for living a full and useful life; and (4) to set standards of behaviour, effort, and attainment, by which they can measure their own conduct.' It would be difficult to find elsewhere the function of school set forth so exhaustively and in such few words.

And what is the mark of good education? "The fully educated person," says the Handbook, "is one who is enlightened in his interests, impersonal in his judgment, ready in his sympathy for whatever is just and right, effective in the work he sets himself to do, and willing to lend a hand to anyone who is in need of it."

As will appear from these quotations, the Handbook has kept a high ideal of education in view and has offered many valuable

suggestions for carrying out this ideal in the day-to-day work of the School. Every problem of the Elementary School has been dealt with in a masterly way and in the light of the most up-to-date theories of Education. The attention of the teacher has been focussed on the child. His health, mental and moral development, his subjects of study, games and extra-curricular interests have all received a fair share of treatment at the hands of the learned editors. For generations both the teacher and the parent will turn to this Handbook for inspiration and guidance.

—J. D. S.

Shiksha-Manovijnana (in Hindi). By Hansraja Bhatia, M.A. Published by the New Era Publishers, Langley Road, Lahore. Price Rs. 2-8-0.

There are very few books on Psychology in Hindi and fewer far on Educational Psychology. Mr. Bhatia has made a laudable attempt in writing a book on Educational Psychology. An attempt of this kind is fraught with tremendous difficulties, particularly in finding out in Hindi parallel words for or suitable translations of technical terms. Mr. Bhatia has faced these difficulties courageously and successfully. He has given us not merely cut and dried Psychology, but has endeavoured to apply its principles to the study of the Child. Sound educational methods have been based on these principles and they have been carefully explained and illustrated. The chapters on Instinct, Emotion, Memory, Apperception and Play are particularly illuminating. The book will be of immense help to parents and teachers.

—J. D. S.

THE INSTITUTE OF THE INTERNATIONAL CENTRAL BUREAU JOY AND WORK

As a result of the World Congress for Leisure Time and Recreation held in July 1936 in Hamburg, 61 countries being represented, the International Central Bureau was set up in Berlin following a resolution of the International Advisory Committee approved in the plenary session. The Central Bureau incorporates a Research Institute, its main spheres of activity being as follows:—

The Institute *collects* addresses of organizations and authoritative persons connected with the recreation movement ; all literature on recreation (books, pamphlets, periodicals, official publications and printed matter, publications of public and private organizations, catalogues and prospectuses of recreational activities) ; films, photographs and gramophone records dealing with all aspects of recreation.

The Institute *researches* in the history of the recreation movement ; the individual character of different national forms of recreation organization ; possibilities of the development of recreation throughout the world.

The Institute *provides* information on individual questions with reference to recreation in practice ; reports on the recreation movement in the different countries ; exchange of experience in the various spheres of recreation.

The Institute *prepares* statistics of the situation and progress of recreation ; study tours in the countries which lead in the sphere of recreation organization ; series of lectures ; joint conferences of scholars and practitioners.

The Institute *collaborates* in the preparation and carrying out of the World Congresses for Leisure Time and Recreation, also in the application and utilization of their results.

The division of the work into various departments was made on the basis of the experience of the Congresses in Los Angeles in 1932 and in Hamburg in 1936. Problems will be dealt with in the first place:—
1. according to countries and groups of countries, 2. according to subject-matter.

The Institute refers for the purpose of research and the exchange of experience in the different countries to:—

administrative bodies	and	influencing bodies:
central authorities		social institutions
regional authorities		religious communities
local authorities		political groups
private groups		philanthropic groups
individual persons		vocational organizations.

In the treatment of questions the following classification of subject-matter is made:—1. Development and forms of the recreation movement; 2. Recreation in the life of the peoples (economic and social pre-conditions); 3. Recreation, town planning and industrial planning (utilization of space); 4. Recreation and public health; 5. Sport and physical exercise; 6. Relaxation with special reference to holidays; 7. Recreation and cultural life; 8. The woman's recreation; 9. Recreation for children and young people.

—International Central Bureau "Joy and Work," Berlin-Wilmersdorf.

WITH THE COMPLIMENTS OF DIRECTOR OF
PUBLIC INFORMATION

No. F.141/5/37. Dated Simla, the 21st July 1937.

PRESS NOTE

Volume II of the Public Health Commissioner with the Government of India's report for 1935 deals with the health of British and Indian troops in India. Some of the figures contained in that report are of general interest.

1. General Health Statistics.

British Army

Officers. 470.1 per 1,000 of strength were admitted to hospital during the year, compared with 429.2 in 1934.

Soldiers. 29,853 or 567.1 per 1,000 of the strength were admitted to hospital, compared with 574.1 in 1934 and 580.5 in 1931.

Indian Army

Officers. The admission rate of officers sick in hospital for 1935 was 346.8 per 1,000 of strength as compared with 335.2 in 1934.

Soldiers. 49,452 or 422.7 per 1,000 of strength were admitted to hospital, compared with 456.8 in 1934. There is thus a decrease of 34.1 per 1,000 compared with the 1934 figures.

2. Malaria.

It is satisfactory to record that the incidence of malaria among British troops in India is 11.4 per 1,000 lower than that in 1934, which was up to that date the record year. The position is even more satisfactory than appears, when the fact is taken into account that frontier operations in a notoriously unhealthy area and during the malaria season were undertaken. In addition British troops in Northern Command were brought down from the hills in connection with the civil disturbances during the malaria season. The admission ratio has been reduced in all four Commands and also in Burma.

Among Indian troops, there were 14,728 cases of malaria with 9 deaths in 1935 as compared with 18,353 cases and 6 deaths in 1934.

With regard to British troops Quetta proved to be the worst station for malaria during the year under report. Endeavours have been made to ensure that in the new Cantonment, now under construction, matters in this respect will be improved. Mosquito-breeding areas are however sited mainly in areas not under military control, and as in the case of dysentery and enteric group of fevers, a reduction or not in the incidence will depend largely on the extent of control carried out by the civil authorities.

In Delhi which figured amongst the most malarious stations in the 1934 report, a reduction from 169 to 87.5 per 1,000 occurred. This is the most satisfactory figure for many years.

3. Fevers of the Typhus Group.

During the year, 82 cases occurred among British and Indian troops, of which only 19 were among the British troops as compared with 52 in 1934. 45 cases occurred in Southern Command, 20 in Northern Command, 5 in Western Command, 8 in Eastern Command, and 4 in Burma. The increase in recorded incidence of this disease is probably due, in part, to better diagnosis of cases of pyrexia of uncertain origin.

The seasonal incidence in all groups was mainly in the post-monsoon and cooler months. In Southern Command seasonal incidence covered rather a longer period probably due to the greater humidity and lower extremes of temperature which occurred in this Command.

4. Enteric Group of Fevers.

The incidence of enteric fevers among British troops has increased slightly (over 0.3 per 1,000) as compared with that of 1934. The incidence in 1934 was, however, the lowest ever recorded and the admission ratio in 1935 was the second lowest during a period of 64 years. In contrast to the British troops, the progressive, although less dramatic, fall in incidence among Indian troops since 1932 has continued, there being 58 fewer cases of the enteric group of fevers than in 1934 and 23 fewer cases of bacteriologically proven typhoid fever.

In 1935, there were 9 deaths among the British and 13 deaths among the Indian cases.

Enteric group of diseases although occurring in all months of the year show a very marked increase in incidence during the hot weather months, most marked from May to September.

In the Northern Command, where the seasons are very distinct, a higher incidence in hot weather months is particularly noticeable for typhoid fever both among British and Indians. As regards the latter, a percentage of the cases are regularly infected during their leave in their villages, leave period coinciding with the hot weather months.

As is pointed out in connection with dysentery group of diseases, it must be realised that the enteric group infections among the troops are only a reflection of the number of undiagnosed cases among the mass of the civil population and the general insanitary conditions in proximity to the military areas, with this difference that a certain amount of protection is available by means of T.A.B. inoculation which is not the case for the dysentery group.

5. Dysentery, Diarrhoea and Colitis.

The admission ratio for dysentery among British troops increased by 3.7 per 1000 in 1935. The diarrhoea admission ratio decreased by 1.0 per 1000 and that for colitis by 0.4 per 1000. The average sick time in days decreased by 286.79 per 1000. The average number of days lost per 1000 of strength was 598.19.

As regards Indian troops, 1424 dysentery cases occurred with only 2 deaths, giving a case mortality of 0.14 per cent. In 1934, there were 6 deaths in 1632 cases and a case mortality of 0.36 per cent.

Dysentery cases were, as usual, sporadic in occurrence, the main incidence corresponding with the fly season.

The report points out that it is the Indian population of military cantonments, and not the troops, which supplies the source of infection, the fly vector, and whose sanitary arrangements are usually very defective. In addition barracks and cantonments are frequently within easy fly range of cities, municipal areas, villages and bazaars, sanitary conditions in which from a modern public health European standard are to all intents and purposes non-existent. At certain times of the year, flies swarm into the military areas from these places, and an early morning walk along any of the small nullahs, ditches etc., in close proximity will quickly demonstrate the impossibility of the prevention of this group of diseases until such time as efficient sanitary services and a sanitary conscience have developed throughout the country.

The fact that from 1930—1935, there have been 21,201 fewer admission among Indian troops is a reflection of the steadily improving sanitation among Indian troops since the post-war period, but, as in the case of British troops, it is feared that the position has now become more or less stationary.

6. Quetta.

At three minutes past three on the morning of May 31st, 1935 Quetta and the surrounding districts were shaken by an earthquake that lasted for 25 seconds. During this short period practically the whole of Quetta city was destroyed, the military cantonments to a great extent escaped but the Royal Air Force suffered heavily, out of an establishment of 656 of No. 3 (Indian) Wing 148 persons being killed and over 200 injured while out of 27 aircraft only 3 escaped damage.

It was fortunate that the military cantonments escaped serious damage for within half an hour of the occurrence of the disaster troops were on the spot and military control was established in place of the civil police and other administration which had been wiped out.

The first and most immediate need was transport as most of the vehicles in the city had been smashed. Every available vehicle in cantonments was used to bring troops into the area and were then used in addition to the military motor ambulances to take casualties to the military hospitals which were soon overflowing with patients. The Civil and Missionary hospitals had been destroyed and the walls of the military hospitals were cracked and unsafe so that verandahs and tents had to be used.

On the day of 31st May 345 in-patients were received into the British military hospital and approximately 600 were treated as out-patients.

The Indian Military Hospital soon became a large Casualty Clearing Station dealing with casualties at the rate of 200 an hour and by the evening of June 1st 4,500 cases had been treated including 450 major

operations, 300 fractures and 1,200 anaesthetics. During the period 31st May to 14th June between 20,000 and 25,000 casualties were treated.

Extra medical assistance was on its way from India, within a very short time but until this arrived the staffs of the two military hospitals, with civilian assistance, carried on night and day without rest in spite of the fact that several of them had been injured. The gallantry of the British women of Quetta must be recorded. Within a few hours of the occurrence of the earthquake a hundred officers' wives reported for duty at the hospitals and took over menial tasks in spite of the fact that many of them were without any experience of hospital or first aid work.

News of the earthquake was received at Army Headquarters by wireless on the morning of 31st May and at once the whole of the resources of the Army was put at the disposal of Quetta. Fourteen officers, 16 nursing sisters, 12 I.M.D., 120 nursing orderlies and six tons of medical stores were sent at once by air and rail and they were followed by three sections of a Field Ambulance from Waziristan and 2 Sanitary Sections from Eastern Command. All available ambulance trains were also put into commission.

—DIRECTOR GENERAL, INDIAN MEDICAL SERVICE.

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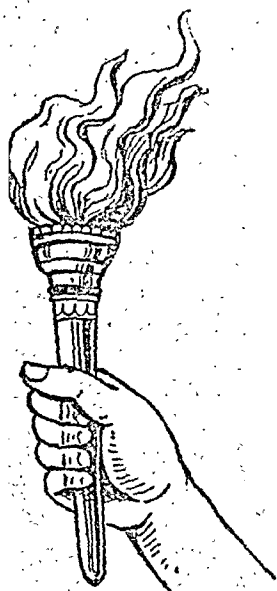


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No. 10

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MANAGING EDITOR:
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OCTOBER, 1937

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Indian Journal of Education

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OCTOBER 1937

No. 10

PROBLEMS OF EDUCATIONAL RECONSTRUCTION

(Extracts from the 80th Convocation Address of the University of Madras)

BY

RAO BAHADUR A. LAKSHIMANASWAMI MUDALIYAR,
B.A., M.D., F.C.O.G.,

Principal, Medical College, Madras.

Changes in Constitution.

This day marks the eightieth annual Convocation of this University and during this fairly long period, the constitution of the University has undergone material changes. Founded in 1857 by an Act of the Indian Legislative Council, the University of Madras had a limited purpose to serve, for its only function under the Act was to ascertain by means of an examination, the persons who had acquired proficiency in different branches of learning. This object the University continued to fulfil, till it was remodelled by the Act of 1904, wherein it was laid down that the purpose of the University was to make provision for the instruction of students, to appoint University professors and lecturers, to hold and manage educational endowments, to erect, equip and maintain University libraries, laboratories and museums, to make regulations relating to residence and conduct of students and to do all such other acts as are necessary for the promotion of study and research.

The Act was in force till 1923, when under the changed constitution of the country, the local legislature passed the Madras University Act of 1923, and the University was reorganised with

a view to establishing a teaching and residential University at Madras, to foster the development of academic life and corporate unity in colleges and in the University by promoting inter-collegiate co-operation, and co-operation between the colleges and the University, and also to prepare for the institution of new Universities by the concentration and co-ordination of resources for higher teaching and research at suitable centres outside the limits of the University. Once more, the political evolution of the country with the consequent changes resulting therefrom, has brought about certain alterations in the constitution of the Madras University from the 1st April 1937, when provincial autonomy was ushered into this land.

Achievements of the University.

It is, therefore, not inappropriate for us to take stock of the achievements of the University during the past fifteen years, to appreciate better what has been done and what remains yet to be done. Although Lord Curzon's Act had been in force for nearly two decades, yet little progress was made in giving effect to the objects of the University. At the end of that period, we find that there were only two departments in our University—Indian History and Economics, manned by two professors—and a University library of small proportions and limited resources, while there were no laboratories, no museums, no educational endowments to manage and no facilities worth mentioning for the promotion of study and research.

Since the passing of the University Act of 1923, many changes have taken place: the University is no longer a mere examining body, as it has taken upon itself the nobler rôle of teaching and guiding research and encouraging scholars to pursue unfettered the mysteries of Nature and the problems of the human mind and intellect. Thus, instead of two departments with two professors which were in existence in 1923, there are now 19 different departments of study manned by 5 professors, 7 readers, and 21 lecturers, with over 60 research students busily engaged in research in the humanities, in science, and in the Dravidian and Indian classical literature. In addition to the facilities available in these departments, the University library which is one of the largest of its kind in India, and which is located in ideal surroundings and in buildings of magnificent proportions, offers to the research student unrivalled opportunities for study and original work, and it has become the centre of attraction for the more devoted and enthusiastic alumni of the University. Not

only has it been possible to enlarge the departments of Indian History and Economics, but also to create such new departments as those of Indian Philosophy, Oriental Languages, Indian Music, Mathematics, Geography, Biochemistry, Botany and Zoology. Thus the University has done not a little to meet the just criticism of those who condemned it for not encouraging Indian thought and culture and higher research in Science. The beneficent influence of these activities is significantly revealed by the fact that while prior to 1924, there was not a single candidate who had obtained a research degree of this University, to-day we are proud of the increasing number of highly qualified research workers: there are 24 Doctors of Science, 25 Doctors of Philosophy, 72 Masters of Science, 4 Masters of Oriental Learning, and one Master of Arts (Research).

A recent welcome addition to the departments of the University is the creation of a School of Politics and Public Administration—and I fervently hope that that School will have a worthy head who will realise that the essential object in view is to deal with the academic aspect of Politics in its widest sense and to give a good training in Public Administration to those who propose to qualify for the diploma.

In another direction also, developments have taken place which must palliate the charge that the University was not paying any attention to the social side of the student's life. The compulsory physical training of students in the Intermediate class, the organisation of Inter-collegiate sports and Inter-University Athletic competitions, and the opening of a University Students' Union, are some of the directions in which the physical and social welfare of the students is being looked after.

The active encouragement given by the University to its Training Corps has resulted in a better appreciation of its usefulness and in a more hearty co-operation in its successful working. The University Training Corps is now at its maximum strength. If the University Training Corps is to serve its legitimate purpose and play the same honourable rôle, as do similar training units attached to other Universities, it can only be by realising its utility and enlarging its scope, by extending its activities in other directions, such as aviation, and last but not the least in importance, by providing suitable opportunities in the regular militia to the most outstanding and competent of its officers and men. If the University Training Corps proves to be merely a blind alley affording no facilities for military employ, it cannot be expected to satisfy the legitimate aspirations of those who join it in the hope that they may serve their country.

The Independence of the University.

Such success as the University has been able to achieve, is due, in no small measure, to the generous support of Government to the University and the harmonious relationship that exists between the two. Under the present constitution, the University is virtually an independent body. It should be independent of Government, because it ought to have, and must have, if it is to live, a character and life of its own, deeply rooted in the needs and nature of the people among whom it is planted. That this is essential in the interests of academic progress, has been accepted by all great educationists of experience.

A University must have also another kind of independence which is at least as essential as the former. Universities may have to set themselves up and recognise their function as asylums and rallying points of independent thought, the home of the right-thinking few against the ignorant many. They preserve the memory of hard-fought fights for truth. In a world where tolerance and forbearance are becoming rare virtues, and where freedom of thought is seriously assailed from many points of view, the Universities must undoubtedly be the haven of refuge for all devotees of Truth, who prize it above the ephemeral attraction of temporal gain.

The Educated Unemployed.

Time and again criticisms have been levelled against Indian Universities that they have failed in their purpose; such criticisms have grown in volume of late, in view of the phenomenal increase in the number of the educated unemployed. When keen disappointment is felt, when the misery of forlorn hope is too fresh in the mind, and when the spectacle of an army of unemployed is so prominently in view, it is no wonder that scathing criticisms are indulged in. The pain one may experience at having to peruse such criticisms would be very much assuaged, if simultaneously constructive criticisms were offered as to the directions in which changes are needed and the extent to which Universities should be remodelled. If some of these extreme criticisms are to be believed in, the University is a great evil to society and has done more harm than good by producing an army of graduates that can serve no better purpose than swell the ranks of unemployed men! I refuse to believe that a University which has produced some of the greatest statesmen, administrators, politicians, lawyers and men of science, a University which has disturbed the placid pathetic contentment of the educated classes,

a University which has given new ideals, new aspirations, new visions to the nation and has been a potent factor in the renaissance movement of Modern India—I refuse to believe that such a University deserves to be condemned in that summary fashion or held up to scorn and ridicule.

That does not mean, nor should it be construed as implying, that no change is needed. New circumstances may demand a new outlook and suggest the need for new developments. No human institution can afford to live isolated, and if a University divorces itself from the active life around it, it is pretty certain that it will very shortly become hide-bound, narrow and pedantic, and will ultimately perish or sink into insignificance through a kind of inanition. This is the law of Nature, and Universities, like human beings, cannot afford to neglect or treat with indifference the obvious lessons of Nature.

Recruitment to Public Services.

Few will deny that the time has come when a thorough re-orientation of policy in regard to higher education is essential, if a condition of stalemate is to be avoided. Some of the most prominent of educationists and public men have been earnestly striving to find a possible solution. The two fundamental problems, of unemployment and educational reconstruction, are intimately mixed up with each other, and efforts to solve the one cannot possibly be successful, unless a solution for the other is also forthcoming. The problem of unemployment of the educated classes is so acute that the State or Society can no longer afford to ignore its gravity and its potential possibilities of evil. The great attraction in this country has been for long, service under the State. Unfortunately the method of recruitment and the age limit imposed for entry to Public Services, have forced persons to enter the portals of a University, who, otherwise, either because of financial considerations or natural tendencies, would have thought of some vocations. With the age limits prescribed between 21 and 25 for entry into State service, parents had no choice but to continue the studies of their boys to the University standard, whatever the inclinations, intellectual attainments or ambitions of such boys may have been. And surprising as it may seem, it is a fact that recruitment to various departments of Public Service has been made, not because candidates were fully qualified to discharge the duties of the respective posts to which they were appointed, but because of their comparative innocence of the requirements thereof. It is only after recruitment, they are

required to get through the departmental tests as best as they can, in uncongenial surroundings and without proper guidance, which they attempt to do during the greater part of their official life.

Age Limit.

It therefore follows that, for solving the problem of unemployment as well as for reorganising the system of education, one of the first problems to be tackled is the method of recruiting to Public Services. Fortunately, the systems obtaining in other countries are before us and they should give us invaluable aid in this direction. In Great Britain, for instance, the age limits for the clerical class are between 16 and 17, and for the executive class 18 and 19, while for the administrative class composed of "those concerned with the formation of policy, with the co-ordination and improvement of Government machinery and with the general administration and control of departments of Public Service," the age limits are 21 to 24, and a limited number is selected mainly from University graduates. The emphasis laid on the method of recruitments to Public Services is due to two fundamental reasons. In the first place, it is a well-known fact that in this country—as perhaps in others as well—the example of the State is followed by other public bodies and business concerns. Secondly, once it is realised at a comparatively early age that there is no possibility of entering State service owing to the age limit, the bulk of the candidates, unable to take to University education, either because of limited aptitude or limited financial resources, will necessarily turn its attention to other avenues and concentrate on some technical training or technological studies. Incidentally, the efficiency of Public Service will improve if these young men, caught at an impressionable period of their life, are given the proper training, before they are actually posted to the different departments concerned.

Educational Reconstruction.

This brings us on to the question of educational reconstruction. A proper scheme of education implies three definite stages:

(1) A literacy qualification, which should be universal and compulsory, training every citizen in the Three R's.

(2) A Secondary education which furnishes a candidate an equipment, complete in itself, so that at the end of the course one may be fit (a) to enter public service in certain departments, or (b) to enter on a professional course of study, or (c) to enter on

the University course of study in arts and sciences, or (d) to supplement the education—so acquired by technical or technological studies.

(3) University education in arts, sciences, and professional and higher technological studies.

From this point of view, the need for revising the courses of secondary education and for providing alternate courses of instruction at this stage so as to divert a certain number of candidates to vocational schools, will be obvious.

Technological Studies.

A criticism that has been levelled against the University, and with some justification, is that it has not kept pace with the times and provided for technological studies. The day has been long past, when the somewhat primitive notion that a University should concentrate only on the humanities and pure sciences, was held up as the ideal. It should never be said that technological instruction when properly pursued on a scientific basis, is in any way opposed to the cultivation of the mind or to the objects of a University. A great deal of the future development of the country depends on technical education; and neither the State nor the general public can afford to ignore the urgent need for launching on a sound scheme of technical and technological studies. The exact machinery that should be devised for this purpose, whether technical schools or technological institutes should be opened, and at what stage, and to what extent Universities should share the responsibility for the higher technical education, are problems that require serious consideration. But the mere encouragement of technological studies will not solve the problem of unemployment, unless the State and the public take active steps to provide avenues for utilising the talent thus available by a well laid out policy of industrial reorganisation and encouragement of indigenous enterprise.

Research in Pure Sciences.

One thing, however, may be emphasised. In the craze for a change, in the anxiety for encouraging technological studies, let no steps be taken which would even remotely undermine the possibilities of the study of pure sciences for their own sake. It is in the pursuit of pure science that the greatest discoveries have been made, which have revolutionised the work of applied scientists and technologists. However much one may appreciate

the need for research in applied science and technology, one cannot but deplore the present tendency to over-emphasise this aspect and to look with disfavour at any expenditure on research in pure science. When Michael Faraday demonstrated his first experiment how a current of electricity was produced in a wire, before a distinguished audience at the Royal Institute in London, a lady, probably voicing the feelings of most of the audience, asked the Professor of what use it was, to which the prophetic reply was given "Madam, will you tell me the use of a new-born child?" When the scholar and statesman, the Grand Old Man, Gladstone, himself remarked likewise, Faraday replied: "There is every probability that you will soon be able to tax it!" To-day civilised nations would find many of their activities at a standstill, if electricity were cut off from them; and Faraday's discovery in the realm of pure science has been one of the most outstanding contributions to the development of technology in various fields. Scientific discoveries of direct and immediate application to human affairs rarely spring forth, full grown and clothed, like the Goddess Minerva from the head of Jupiter. Their beginnings are usually inconspicuous, and their development slow. As the acorn gives birth to the giant oak, so what seems to be a trivial experiment or observation, is often the seed of a great industry.

Medium of Instruction.

Let me next refer to a subject which has been keenly discussed but with little practical result. The use of the mother-tongue as the medium of instruction in schools and colleges has been advocated for over half a century, and in a Convocation Address delivered as far back as 1868, the Hon'ble Mr. A. J. Arbuthnot made a special appeal to the graduates to create a literature in Indian languages and use it as the medium for the diffusion of sound learning. Mere sentiment will not help us, and it is no use vainly criticising and indulging in denunciation. Practical steps should be taken to achieve the end. A number of schools in each district should be chosen for this purpose, and special grants should be made by the State to compensate them for any loss. Simultaneously, the proper training of teachers in Teachers' Colleges should be taken on hand and they should be encouraged to take up an Indian language as a compulsory subject of study to be used as the medium. To those who pass out of these schools, every effort should be made to set apart one or two colleges where further instruction may be given through the language chosen.

And lastly, the curriculum itself should be revised so that, while instruction in Indian languages is being given, the study of English on efficient lines is simultaneously emphasised to make them proficient in the particular subjects of their study. There is only one further observation to be made on the subject: the growth of a literature in the Indian language concerned, cannot be by a process of translation but by the encouragement of original work by thoroughly competent authors in the humanities and sciences.

Maintain Standards.

And this leads one to the subject of the maintenance of standards in Higher Education. It is not possible of refutation that University education would be a farce, if at every stage proper standards were not maintained. And so far as the Madras University is concerned, it is generally conceded that the need for maintenance of standards has been well recognised. The late Sir V. M. Coutts-Trotter on the eve of his retirement, in a letter addressed to the Vice-Chancellor in 1929 referring to this subject, said: "I was told by the members of the Sadler Commission that the quality of a degree in the Madras University was no less than fifty per cent higher than that in other Universities. That is a thing to be proud of and I trust that the Madras University will keep up its high standard of efficiency." Let us hope that the University will always maintain its high reputation undeterred by adverse influences. But the maintenance of proper standard implies the maintenance of standards for teachers and taught alike. I speak with a due sense of responsibility when I say that the University has to be particularly jealous in maintaining the standards of teachers and in protecting the just rights of the profession. *It is unfortunate that the profession has not been able to organise itself sufficiently to withstand adverse influences. If teachers in colleges are ill-paid, if there be no security of tenure, if their continuance in service depends on the whims and fancies of managements, is it possible that they will be in a position to perform their daily task properly, and inspire the students in the right direction?* One need not dwell at greater length on this subject, but it deserves careful consideration.

Knowledge and Wisdom.

There is a famous and familiar saying of Lessing that if the Almighty offered him the choice between the knowledge of all truth, and the impulse to seek truth, he would reverently select the second as a greater boon than the first. And this is the attitude

which it should be the end and aim of education to make easy and natural. To be open-minded, to struggle against pre-conceptions and hold them in due subjection, to keep the avenue of the intelligence free and unblocked, to take pains that the scales of the judgment shall be always even and fair, to welcome new truths when they have proved their title, despite the havoc they may make of old and cherished beliefs—these may sound like commonplace qualities well within every man's reach, but experience shows that in practice they are the rarest of all!

I deplore the tendency in some of the alumni of the University, to so engross themselves in their particular vocation that they have neither the time nor the inclination to pursue their literary studies, or to cultivate their faculties of close reasoning and constant inquiry. Nothing is calculated to petrify the development of the intellect and make it submissively accept the preconceived opinions of others, as this policy of intellectual inertia. One of the greatest legacies of a University training is that the best thoughts of the men of letters of all nations of the world are available for the keen student of human nature, and it is these elevating ideas and ideals that will, ere long, help him to take his proper place in the body politic and add his quota to the welfare of the general public.

Journalism.

To some of the graduates, the lure of the Press may be irresistible, and many will doubtless enlist in the ranks of journalism. It is but right that the cream of the intellectual aristocracy of the nation should be eager to guide the people through the powerful influence of the pen. The Press is no longer the fourth estate of the realm: in a very real sense, it has come to occupy the premier position and play the leading rôle in the life of the community and of the nation. Question it who will, the Press is a great power for good—it is also unfortunately a great power for evil. It can expose and insist upon the remedy of wrong—it can also do wrong. The thoughts and expressions that we have once committed to writing are there, and no power can alter the impression thus created or the prejudices roused thereby.

A freedom-loving Press that is honest, incorruptible and subject to no influences of power, wealth or the more subtle and less evident forms of social pressure, is a great national asset. And who can better help in the creation of such a press than graduates who combine in them the idealism and independence of

youth, the intellectual vigour and discipline of a University training, and the love of justice and fairplay of a cultured mind? Is it not sad to contemplate that, to-day, if humanity is divided into warring camps of aggressive nationalism, if mankind is slowly developing the herd instincts of the denizens of the forest prowling about for the next prey or preparing for the next contest, the blame is not a little due to the jingoistic tendencies of a morbidly excited press?

In another direction, perhaps, we have to resist the temptation of falling into methods of writing, which may be eagerly looked for by a dissipated frame of mind. The Press that stands for sensations, that will splash the most trivial of incidents because of its obvious appeal to the vulgar, and that will itself cater to a lower taste of mankind with drab pictures and still worse matter—such a press should have no place in a cultured society. Fortunately, the traditions of the press in our country have been always high, and we should maintain these traditions and improve on them.

Duty as Citizens.

Whatever branch of learning our graduates have specialised in, whatever profession or career they may have chosen, a University education, if it has equipped them aright, should have given them the training to play their part worthily in that larger life which it will be theirs to share, and to discharge those obligations which they will be called on to fulfil as citizens. We stand on the threshold of a new era. The dark clouds overhanging have slowly disappeared, and we see before us the first glimpses of a new era, an era of hope and expectation, an era of goodwill and cheerful co-operation in the interests of the nation and for the uplift of the country. The historical glory of a great civilisation glows behind us; the rising splendour of an enlarged nationality and of a new intellectual world is before us. We may well be stirred with noble emotions at the sight of where we are and what we have to do.

Be True Patriots.

If the interests of our country are paramount and if the uplift of our fellow-citizens and their welfare is the dominant thought within us, we cannot but throw ourselves heart and soul in any field of public service which it may be our privilege to partake in. Do we really feel that every citizen in this land is a brother of ours? Do we look upon him as one entitled to the

same consideration as ourselves? Do we recognise that equal opportunities should be available to everyone to be the architect of his own future? If we do, if we have overcome the artificial barriers of race or religion, of position, wealth or birth, if the accidents of life have no significance to us, and if our interest for human welfare is broadbased on the dictum that every one of our fellow countrymen has God-given gifts, opportunities and privileges and has no reason to be ashamed of the trivialities of birth and of social position, then only can we realise the true lessons of University training. If that spirit pervades through the length and breadth of this country, if every graduate of a University realises the truth of the oft-quoted couplet of that Scottish Bard and patriot

“The rank is but the guinea stamp,

The man’s the gowd for a’ that,” (*Burns*),

the future of this land is assured, and no more shall we have to hang our head down, as when faction, disharmony, mutual suspicion and antagonism have the upper hand. True patriotism consists in ignoring differences and emphasising points of agreement, in discarding age-long customs and traditions, which, whatever their worth at one time, have no place in a world permeated with the spirit of Equality and Fraternity, in appreciating more fully that in the struggle between the “Haves” and “Have nots,” the time is come when the “Have nots” must be shown a generous gesture. What are wanted most in our country are “Unity in essentials, Diversity in non-essentials, and Charity in all,” and were that spirit to pervade our daily life and conduct, we would have carved for ourselves a glorious place in the history of our country.

The Great Appeal.

The problem of today, in a world surcharged with emotion, where dictatorship is undoubtedly making a sharp bid to conquer new realms of thought and expand its influence by the creation of more dictatorships—the easy and facile idea that it cultivates that there are short-cuts to rapid progress—is to cultivate the critical faculty, to review all possibilities and to safeguard that freedom of thought that has been the priceless possession of all ages. To young men of vision fresh from the portals of a University, the world looks with anxiety for the dawn of a new era, when peace and goodwill among nations will not be a dim panorama of a distant past. To them and to such like them,

humanity, haunted with the memories of an unforgettable past of ruthless slaughter and unspeakable suffering, looks forward with hope that they will rise above all selfish appeal, above the tyranny of dictators, and above all narrow passion and sentiment. May not the great gifts of our University life and training, encourage us to follow a policy of intense love for our country with that greater ideal of love of humanity? May not the angel of peace record in that book of fate our names in the roll of honour as men that love their fellow-men?

Then may we lift up a corner of the curtain that hides the great shall-be and look without fear on what lies beyond. Then may the eye see that which shall gladden the heart. Then may it be possible for the keen intellect and sublime thought of the greatest Eastern race to weld its fortunes with one of the most democratic races of the West and rise to the height of its glory. Then shall we see an Indian Empire, proof against traitor within and foe without, an Indian Empire ready and willing to take her stand shoulder to shoulder with her sisters of the great Anglo-Saxon federation, rockfirm against all evil-doers, foursquare against the sinister influences of the world with the single determination of preserving peace and ensuring the mental and moral happiness of the world at large. May the Giver of all good shower on you His choicest gifts and inspire you to great ideals and great achievements for the glory of your motherland and the good of humanity!

SHALL WE GO ON MAKING LITTLE SOLDIERS?

BY

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Unfortunately, there are many others teaching history as I was teaching it two years ago. Day after day we exalt as national idols the military figures of our nation. Day after day we cloak war with poetic sentiment. It is so easy for us to inculcate militarism without being aware that we are guilty. Those who think it well to go on making little soldiers need read no further. This article is intended for those who do not want our history courses to savor of Fascism, who do not want education to have a hand in producing the material to be gassed and shattered in the next conflict.

In my own experience I have found that there is another way. It will mean robbing of romance half the facts of history. But if we are to educate for peace, there is no choice.

First of all, the teacher must exalt the heroes of peace above those of war. Until we strip the haloes from the soldiers of history and honor instead the heroes of peace, we can hardly hope for a peace-minded youth. The concept of the "great soldier" must be destroyed. The history text will probably devote two pages to Sherman and a paragraph to Morse, but that is no reason the teacher's emphasis must be on sack and pillage rather than on progress. In too many classes it is "difficult to hear the march of progress for the beating of the drums."

The teacher must destroy the romanticized concept of a "holy war." War was not holy 500 generations ago when the cave man killed his foe with clubs and arrows. It is no more holy when man murders his enemy with shrapnel, liquid fire, and lung-searing gas. What is most *un-holy* is that the man of the Stone Age and the man of the Radio Age respond alike to the call of war. Every war in our history has masqueraded as a "holy war," yet, looking squarely at the facts, we find that not one of our wars has been defensive.

The history teacher should depict these wars not as "holy wars" but as a series of unfortunate mistakes. Each should be subjected to the most searching analysis to see if the profits have balanced the cost. There will be no need to resort to propaganda. The plain facts of history will be the best argument for peace.

The teacher must substitute for the ideal of a glorious death the ideal of a life of service. There is no reason that the supreme sacrifice for one's country should be visioned as the pouring out of one's blood. How much more valuable the life spent in service and citizenship! It is criminal to exalt the "glorious death," when so often death is not the worst that happens. Armistice Day speakers make the soldier's death as easy and glorious as a touchdown at football. They do not publicize the nerve-shattered victim of shell-shock. They do not extol the glories of the cripple. They do not cheer the disfigured victim of the flying shell.

Students must be placed on guard against the sensational press. Here will be useful the lesson of 1898 when publishers, eager for circulation, outdid each other in printing columns of falsified news illustrated with faked photographs.

Here the student should relive the years from 1914 to 1917, when all the news came through London, edited by the Allies in their own interests. The atrocity stories—the corpse factory myth, the crucifixion illusions—may be recalled to the end that students will guard against such misrepresentation.

The *Lusitania* hysteria should be exploited. Twenty years later we are able to wonder how the Cunard Line *dared* to sell Americans passages through the war zone under specific notice that the ship would be sunk. We are able to digest the full import of the fact that the hold of this passenger vessel was bearing crated death to thousands of Germans.

Perhaps by such examples the teacher can create a healthy distrust of newspaper headlines, a determination to seek the truth in spite of swaying editorials.

Pupils must be trained to ferret out the real causes of war—to realize that selfish interests often masquerade under seductive catchphrases. No war would be popular if it were known that it was fought even in part to increase the profits of a newspaper or a steel corporation. Attention should be directed to the selfish interests active in 1917—the \$100,000,000 orders placed with Bethlehem Steel, the \$500,000,000 loans arranged by the Morgans. Present dangers from selfish sources should also be considered.

In revealing the selfish interests that have played their part in causing past wars, your textbook may not be helpful. The following paragraphs were found in texts exhibited in 1936 as among the most progressive in the history field:

Relating to 1812: "It was inevitable that the English seizure of American ships would sooner or later lead to war."

Relating to 1917: "The avowed purpose of America's entrance into the World War was to make the World safe for democracy Germany and Austria were autocratic powers The struggle was to be one between Autocracy and Democracy."

The teacher must point out that neutrality is invaluable—that for it a nation can afford to pay a high price, even to the point of giving up such long-cherished principles as freedom of the seas. History classes should not miss this most vital lesson of the World War, that when nations are involved in an economic death struggle they will admit no rights of neutrals that in any way jeopardize their victory. To declare that we will go to war for neutral rights is the quickest and surest way of getting into the conflict.

During the World War the United States espoused the "we-will-stand-no-nonsense-from-any-nation" idea. It cost nearly a million lives and 32 billion dollars. It is easy to see now that the price was too high.

Pupils must be impressed with the tremendous cost of modern war. We must help our pupils to stop visioning war in terms from the distant past—soldiers charging with flashing swords, clear trumpet calls, flags flying in the wind. To teach modern war in the terms of the wars of Hannibal and Napoleon is cruelly and tragically misleading. Then war was a game, played by teams of professional soldiers. Now it is a carnage which threatens to draw all mankind into the holocaust.

As to the cost, how many students know that it cost \$25,000 to kill each of the 10,000,000 who perished in the last war? Do they have any conception of the added cost in deformed bodies and shattered minds? Do they know that all the expenditure of life and money produced nothing, except seeds of future wars?

The teacher should combat the prevalent idea of the inevitability of war. History courses should include a thoughtful study of the best plans for attaining peace. When we say that wars will always be with us we are saying, "There, there, little world, just run right along and commit suicide." History classes should investigate the possibilities of the League of Nations, the World Court, the proposal to pool the world's natural resources and allocate them to the nations as needed. They should look to the future as well as the past.

Last, pupils should be freed from the bonds of petty nationalism. Giving up national selfishness is the price of peace, and the price must be paid. The student should learn to love his country, but let him also love mankind.

—THE EDUCATION DIGEST.

EDUCATIONAL THEORIES OF THE 17TH CENTURY

BY

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The main actors to stage the drama of Education of the 17th Century were Comenius (1592—1670), Milton (1608—1674), and John Locke (1632—1704). The exact place of the birth of Comenius is not known. He was either born at Coma or at Niwnitz in Moravia. He received his education at two important educational centres, Herborn and Heidelberg. As a scholar he had travelled in Holland and England, and was thus well acquainted with the practice of Education in those countries. He was appointed a rector in a school at Preran. During his career as a teacher, he engaged himself in writing a large number of books on Education. Some of the books which he wrote were: (a) *Pansophia Reserata*; (b) *Janua Linguarum Reserata*; (c) *Eruditionis Scholastica Janua*; (d) *Jánua Linguarum Trilinguis*; (e) *Orbis Sensualium pictus*.

As a result of these books, he became a famous writer of Education, and is of especial interest to the English student of educational history on account of his composition of the *Great Didactic*. This great work was written by him when he was under forty, and was published in its final form about 25 years later. It was originally produced in the author's Native Bohemian, but in 1657, it was translated in Latin. In this book are embodied the reflections of one of the greatest of Educationists of the early seventeenth century, on such problems as the extension of liberal studies, the provision of more schools, and the introduction of an easier method of learning. On account of widespread and universal notions on education, he was regarded as an authority on education, and was actually requested by the Government of Sweden to draw up a scheme for the management of its schools.

Some of his Educational theories may be summarised as follows:—

1. That Teaching of words and things must go together. They cannot be separated from each other. In other words the process of elementary education should be coupled with the use of picture and object.

2. That languages can best be taught by conversational method; and that the mother tongue should be used as the basis of the language teaching.

3. That knowledge must be acquired first through the senses and later by way of generalisation and judgment.

4. That more knowledge can be had by the study of Nature than from books. From this have probably arisen the modern subjects of Nature Study and Object Lessons.

5. That Education is more or less a state function. Primary education should be made compulsory and easily and cheaply available by the state. The higher education, however, should be reserved for those who, being intellectually fitted to receive it, are most likely to turn higher education to profitable account.

6. That children who are poor, and on that account are unable to afford themselves the benefit of Education should be aided by the state with an adequate and proper number of scholarships.

7. Elementary training imparted to children should be done more by example than by mere precepts. Children learn more by doing than in any other way.

8. Unlike the long school hours of the Middle Ages, Comenius advocated that class instruction should last only for four hours a day, and that the method of teaching should be easy and not laborious. As a result of the improvements which he introduced in the method of teaching, it became possible for a teacher to handle a larger number of boys at a time than it was possible before. The art of teaching ceased to be purely empirical, and became more and more real under his guidance and instruction.

9. Too much stress on the memory of children should not be made. They should only be made to memorize the most important things, and possess only a general knowledge about the rest.

10. That really good books, which can in the true sense of the word be termed sources of wisdom, virtue and piety, should be placed in the hands of pupils and that those responsible for it should exercise utmost care in their selection and adoption.

11. That Elementary training should be general and cover a wide range of subjects. Determination of the propensities of a child towards a particular vocation should be judged at a later stage.

In concluding the educational principles of Comenius, it must be thankfully acknowledged that the Great Didactic produced by this great educator was a very powerful factor in moulding

the educational shape and policy of the period which followed. The secret of his principle may be summed up in his own words (Chapter XVII, 17) of the *Great Didactic*:—

“Curriculum and method must combine to awaken interest in the scholars’ mind, parents, masters and even the State itself should kindle the desire to learn. The school premises should be pleasant places, bright, clean, ornamented with pictures within, and without supplied with a playground, and also a garden where scholars may feast their eyes by the inspection of trees, flowers and plants. Individual capacities, incapacities, dispositions, and repulsions ought to be noted by the educator, and his practice regulated accordingly. No child should be tasked otherwise than suitably to his age and mental strength.”

The first Act of the drama of Education of the seventeenth century, which was enthusiastically and effectively played by Comenius came to a close by his death on November 15, 1670.

The second Act of the drama of the 17th century was staged by Milton (1608—1674). He was the contemporary of Comenius. His method of approach to the problem of Education, however, was quite different. Milton, unlike Comenius, did not deal with the education of the people, but treated it in a very restricted manner, confining it only to a particular class of people, and extending it over a limited period. In this respect the work done by Milton towards the progress and spirit of Education may be considered to be in the backward direction. He, however, had original views on Education and also some novel methods of imparting it. On this account, he occupies a prominent position in the History of Education, and deserves a conspicuous treatment.

According to Milton, complete and generous education implies the acquisition of that faculty in man, which enables him to perform justly, skilfully, and magnanimously all the offices, both private and public of peace and war. In accordance with this definition of Education, Milton drew up a corresponding curriculum of studies and physical exercises. He laid special emphasis on that part of Education which can be acquired by travelling and thereby seeing and actually coming in contact with different places and their products. He also advocated the formation of a residential university situated in an open healthy place with beautiful surroundings, and the Education imparted in these institutions should combine three essential qualities of simplicity, healthfulness and moderation: As regards languages, Milton was definitely of opinion that too much time in learning

it should not be wasted, as it is simply the means and by no means the end. He also laid ample stress on the fact that the application of knowledge alone is primary, whereas its technique is merely secondary.

Education from the point of view of Milton was not so much of an Individual as a National problem. A progressive scheme of Education is extremely necessary for the safety and prosperity of a nation. Any nation which does not pay a proper amount of heed towards the establishment of a sound system of Education is ultimately bound to perish. He maintains that Education is the only means by which the very best of Nation's best men can be brought out, and the success of Education of a particular Nation depends upon and can very accurately be gauged by the number of great men produced by it as the result of a healthy system of Education.

The third part of the drama of Education of the 17th century was very successfully staged by John Locke (1632—1704). John Locke was a great English Philosopher. He was born at Wrington in Somersetshire, on the 29th of August 1632. His father was a petty landlord, and educated his son more or less in a very casual manner in the rural home of Belluton. In 1646, however, Locke joined the Westminster School, where he remained for six years. After this, he entered Christ Church Oxford, and got his training under the able guidance of John Owen, the Dean and Vice-Chancellor of the University. He passed his B.A. examination in 1656, and his M.A. two years later. After getting his Master's degree, he became a lecturer in Greek, Rhetoric and Philosophy at the Christ Church. During his career as a lecturer, he showed great interest in the activities of the Royal Society, and often experimented in Chemistry and Meteorology in which he was particularly interested all his life.

John Locke was primarily a man of free and independent ideas, and therefore did not find himself much in harmony with the atmosphere, which was then prevailing in England. This led him to retire to Holland in 1683, at the ripe age of fifty-two. In this land of liberty, he concentrated his efforts on writing books on Social Economy, Christianity, Education and Philosophy. For our part, we are mainly concerned with his educational contributions. Some of the outstanding books on Education, which he wrote, are the following:—1. *Some Thoughts concerning Education*; 2. *The Conduct of the Understanding*; 3. *Some Thoughts concerning Reading and Study for a Gentleman*; 4. *Instructions for the Conduct of a Young Gentleman*.

In these books Locke liberally put forth his ideas on Education. These may briefly be summarised as follows:—

- (a) That Education is not a State concern but purely a parental duty. In this respect Locke differs from the previous educators who emphasised the fact that Education in order to be universal should be primarily guided and controlled by the State.
- (b) That the true aim of Education should be the harmonious development of the body and the mind. It should not be one-sided. The development of a healthy body is as essential as the development of a healthy mind. In fact the two developments are inter-dependent.
- (c) That bookish knowledge alone is not the true aim of Education. According to him True Education is that which kindles the desire for a happier and complete life.
- (d) That to produce healthy children too many restrictions should not be imposed on them. They should, however, be occasionally checked, but this process should be exercised with great caution.
- (e) That example is always better than mere precepts. It works more effectively with children than empty theories.
- (f) That no special cut and dry rules be introduced in educating children, who should be educated in an intelligent manner according to their particular needs and requirements. Special attention should, however, be made to develop their memory, as it is almost indispensable in life.
- (g) That suitable recreative hobbies and vocational training should form a very prominent part of the education of young men. He also emphasised the importance of excursions as a part of general Education.

LET ME KNOW LOVE

NORMAN F. MACGREGOR, JR.

Let me know love, O God,
A love that asks not why it gives,
But giving, stronger grows and lives
Even to the end, O God.

Let me take a soul and make it part of mine
And mine a part of it, so that the two entwine
Closer as the years go by; and let us see,
Each in the other, a true light of Thee.

Grant that each may make his life a prayer.
Filled with service and devoid of care
So that, entering the unknowable land,
We may go onward, hand in hand.

Surely love like this, O God,
Cannot help but bring to Thee
On wings of sweetest melody
The souls that love, O God.

—WORLD ORDER.

THE REPORT OF THE EDUCATIONAL EXPERTS AND VOCATIONAL EDUCATION

BY

N. KUPPUSWAMI AIYANGAR, M.A., L.T.

Training College. Trivandrum.

It is no secret that teachers as a whole were against the importation of the experts. The All India Educational Conference passed resolutions to that effect in two successive sessions,—at Nagpur and Gwalior. They had nothing personal against them. It was thought that there were men in India competent enough to do the job equally well but at a considerably reduced cost. This is justified by the fact that there is not a single idea in the report that has not been expressed by Indian educationists. Secondly, teachers know that the motto of every Englishman is “my country, right or wrong.” They know also that this was proved by the reports of all the commissions and experts, Royal or otherwise. They had no reason to expect anything different from these experts.

It is a pleasant surprise to see that, true to the traditions of the teaching profession and those of the educated classes, these experts have tried their very best to look at the matter in an impartial manner. This was not particularly easy for them. The Government of India had prejudiced the case by the issue of their circular which contained statements that no educationists can accept. The experts naturally did not want to expose openly the hollowness of the circular. They had to approve something or other in it. That they found this rather difficult is clear from the fact that the only thing they could whole-heartedly commend is “the general lay-out of the proposed reconstruction.” Lest it should be understood to mean more than what they had in mind they hastened to add, “That is to say we think (a) that Universities should make themselves responsible for a three-year course leading to a first degree, and (b) that the system of general education below the Universities should be divided into three well defined stages.” Those are the most innocent and theoretically not undesirable of the government proposals. Even this approval is qualified. They say, “Though we regard reform of the *content of general education* as being even more important than a reorganisation of the *framework* of the educational system, we

whole-heartedly approve etc." Every other proposal of the Government of India is considered to be absurd by these experts, though, out of politeness, they do not say so in so many words.

Vocational Education and Unemployment.

When we remember that the main object of the proposed reform was to remove unemployment, the following statements of the experts must be disquieting to the authors of the circular. The report says:—

"On this aspect of the problem we may remark that it would not affect unemployment, considered as a quantitative problem, to divert students from universities into other educational institutions regardless of whether the students from these other institutions were likely to be more successful in obtaining employment than are the B.A.'s and B.Sc.'s. Such a policy would but alter the educational qualifications of the unemployed without decreasing their number."

Out of courtesy to their employers, I take it, they did not add what every country in the world has found out by experience that efficient vocational education increases unemployment by replacing unskilled men by a less number of skilled men and skilled men by machines.

Who are to be diverted to Vocational Education?

Both the government of India and that of Madras want those that fail in the proposed examination to be held at the end of the Lower Secondary Course to be diverted to vocational course. The experts' report is definitely against this idea. That says that this plan

"assumes that the proper aim of every good student is to proceed to the university and, after completing his studies there, to enter upon a professional career outside industry and commerce; and that only students of inferior ability ought to aim at a career in business, either when they have finished their general education, or after they have received some measure of vocational training in a technical school."

Such an assumption is unsound because "no country can develop its trade and industry through the work of second-rate men only." Among various reasons, one reason why India is backward in industrial matters is that up till now its best brains have not turned their attention to industrial work. The experts say, "Vocational education must be based on an adequate general education." "Employers themselves want it that way," says Mr. H. A. Roberts of the Appointments Board of the Cambridge University. "Business men do not want us to teach business but to train men in such a way that they will be in a position, later,

when they enter business, to master soon the routine details of their calling and then be fit for industrial and commercial leaderships."

Secondly, 'Vocational education is not on a lower plan than literary education," say the experts. The general intelligence required for any kind of vocation is the same as that required for the corresponding standard of work in general education. The general intelligence of an expert carpenter is not less, perhaps, more than that of an ordinary graduate clerk. The intelligence of a good engineer is often greater than that of a collector or a Professor. Therefore they add that the vocational schools "should be held in the same repute" and "would be parallel to the existing Higher Secondary Schools and Intermediate Colleges." There is no reason why the successful products of the vocational schools should not get admission into suitable university courses.

There is yet a third reason why pupils should not be diverted irrecoverably to vocational courses. Improvements and inventions take place now so rapidly that a person trained to a particular vocation finds his occupation gone in a few years for, in the meanwhile, better and more efficient methods have been discovered and younger men trained in the newer methods become available. This kind of unemployment after the man has attained the age of 25 or 30 has come to be common in Western countries. Therefore the Board of Education in England in their recently published book "Suggestion To Teachers", in discussing the aims of education, say:—

"Modern education must adapt itself to modern needs They (modern citizens) will need, moreover, to accommodate themselves to sudden changes of process and method in the occupation they are likely to take up, and even be prepared to transfer themselves from one occupation to another and from one part of the country to another. The individual, therefore, must not only become *more adaptable as a worker*, must also be in a position to select for himself some worthy and useful way of occupying his free time."

In fact, throughout the world, the problem now is not how soon pupils are to be diverted to vocations but how long we can keep our pupils in the same school for general education. So according to the report, it is not the failures in general education that should be diverted to vocational education. On the other hand, they want "admission to vocational schools to be something of an achievement. In addition to their passing the 'Examination at the end of their general education, the experts say that it is desirable to hold a special entrance examination in the subjects

they have already studied." That is to say, *it is not the failures in general education but it is only those that have shown themselves to be superior in the matter of general education that should be admitted into the vocational schools.* This should be an eye-opener to our arm-chair educationists.

How are pupils to be diverted to Vocational Schools? Vocational Guidance.

Both the government of India and Madras naively assume that, by examinations and vocational guidance technique, it is easy to find out who are fit for which kind of education. The report states clearly that "Although progress has been made in many countries in the direction of determining vocational suitability, we are not convinced that the investigations have yet reached the point at which their results are of general applicability." This is only a mild way of saying that Vocational Guidance is still in its experimental stage. No psychologist is prepared to take full responsibility in the matter. Even in go-ahead America, The National Vocational Guidance Association is particularly emphatic that "Care should be taken that the choice is made by the individual himself . . . absolute freedom of choice is his inherent right."

Vocational Schools.

The experts recommend the establishment of Vocational Schools. But they say that "General and vocational education should not however be provided in the same school". Again, they say, "The expansion of vocational education should, therefore, not greatly outstrip the development of industry." "But the development of industry on a scale which will offer profitable employment to any substantial number of those who are now idle depends upon . . . a number of other factors which education cannot influence, as well as action in the field of economics and politics which do not come within our terms of reference." This may not have come within their terms of reference. But the people of India must insist on solving this economic problem before they are satisfied with any kind of educational reconstruction. For a beginning, they want the government to make an industrial survey of the country and establish and maintain Vocational Schools at suitable centres a little in excess but not too much in excess of the needs of trade and industry and in co-operation with them.

Relation between General Education and Vocational Education.

It has already been indicated that, in the opinion of these experts, indeed all sane educationists agree that vocational education is not a substitute for general education. "General and vocational education ought not to be regarded as essentially different branches of education, but rather as earlier and later phases of a continuous process, fostered by the community, with the object of helping the immature child to develop naturally into a good citizen." The question therefore arises that in what way general education can help in the development of industry and commerce and thus in the removal of unemployment. Our present difficulty is not so much that there is unemployment among the educated but our ordinary educated men are unemployable in any productive occupation.

It is sheer nonsense to say that Indian boys will not take off their coats and do a 'job of work' with their hands. Tiresome, hard physical work, nobody likes—neither the European nor the Indian. But every Indian boy likes manual work as much as any other in the world. The popularity of our manual training department proves it. It is adding insult to injury to say that you are unwilling to do it without giving any opportunity to do it—nay, after preventing you from doing it. It is the nature of our education both in the way of omission and commission that made our boys acquire a distaste for manual work. The experts fully realise the truth of this aspect of the matter. (See page 21, section 55.) Therefore they say that "*Manual work, that is creative manual activities of diverse kinds should be part of the curriculum of every school.*" "Manual work gives boys a handiness, invaluable to those who proceed from general to vocational schools." This is the most important contribution towards educational reconstruction made by these experts. It remains to be seen whether this recommendation will be implemented in the proposed reconstruction.

This recommendation is made not merely because that it would be useful to those who go in for vocational education, not only because "it may lead pupils to acquire interests which will stand them in good stead in their leisure hours," but because it is an education in itself. It will create a sense of real value. It will make pupils realise what work means and remove the narrow-mindedness involved in having an undue reverence for what are called black-coated professions. It would create a certain amount of respect for the manual worker. It would make

the pupil estimate the value of skilled work in a more sympathetic manner. In short the creation of social sympathy as a result of a better understanding of what is due to others is the aim. This is exactly what the All-India Educational Conference which met at Gwalior last Christmas and at which the experts were also present wanted when it passed the following resolution:—

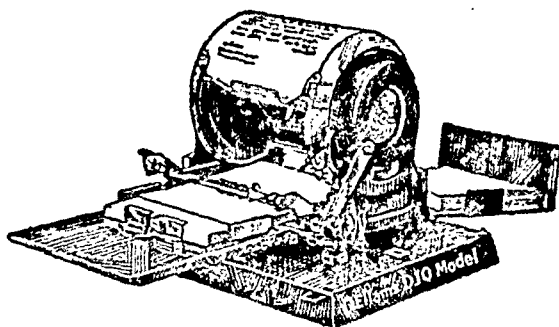
“That this conference is of opinion that if any educational reconstruction is to be real and satisfactory, it should provide equally for the Humanities, the Sciences, and for practical pursuits in the curriculum of every pupil throughout his educational career.”

This, of course means less time for the Humanities and the Sciences. But I have no doubt that at present, we are teaching a lot of worthless lumber in the name of the Humanities and the Sciences. It should not be difficult for teachers to select matter so as to make the curriculum less heavy and more useful.

Summarising, the recommendations are:

- (1) Vocational education should be given in separate schools.
- (2) Admission to Vocational Schools should be given not to the failures in general education but to those who do well in general education.
- (3) Useful constructive manual work should form part of the education of every pupil throughout his school career irrespective of the fact whether he is to enter the University or one of the vocational schools, or he is to take to work directly he leaves school.

It is to be hoped that after spending so much money and time over the matter, neither the Government of India nor the Local Government will shelve this report.



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(Edited and Published by the All-India Federation of Educational Associations, Post-Box 52, Cawnpore)

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- (1) To act as an information Centre for all matters relating to Indian Education.
- (2) To encourage scientific investigation in educational sphere and to stimulate statistical enquiries or those relating to experimental projects.
- (3) To consolidate a public of those who, finding it impossible to be indifferent about the educational drift of India, believe that a concern for the health of educational criticism is immediately relevant to the political and economic urgencies of the time.
- (4) To provide a mouthpiece for Indian educational thinkers and researchers.
- (5) To strive for World Peace through Education.

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CRUCIAL ISSUES IN EDUCATION IN U.S.A.

BY

J. W. STUDEBAKER,

Commissioner of Education, Washington.

In recent years, the meetings of the Department of Superintendence and the studies reported by its various commissions have shown new vitality. The pressure of events in the modern world has forced many of us out of the academic cloisters. The subjects of the last three *Yearbooks* indicate a new temper among us: "Social Change and Education," "The Social Studies Curriculum," and "Improvement of Education—Its Interpretation for Democracy."

The most recent pronouncement dealing with the social responsibilities of education comes from the Educational Policies Commission through the facile pen of Charles A. Beard. The pertinence of this professional expression is revealed in the title: "The Unique Function of Education in American Democracy." In all of these presentations we recognize that the issues in education are born of the issues in society.

The particular issues I wish to emphasize are not new ones. But they are not being met by programs or plans which are adequate or satisfactory.

The *first* crucial issue in education grows out of a major conflict which is swiftly reaching the stage of a crisis throughout the world. The conflict is between two principles of social organization . . . between dictatorship and democracy, between tyranny and tolerance. No important institution can ignore this issue. The question which confronts us is: "What more can education do to undergird American democracy?"

The *second* crucial issue in education arises out of another major conflict which is of worldwide proportions. The conflict is between two principles of economic opportunity. One principle asserts that "man shall live by the sweat of his brow." The other principle, if general practice may be summarized, is that a large percentage of men shall not be permitted to live by their work but shall be forced to accept a meagre charity. What more can education do to assure educational, recreational, and work opportunities to youth, as our special responsibility?

Other crucial issues which I shall merely enumerate are:

(1) The worldwide threat of devastating war. What part can education play in preventing war, or at least in keeping America out of it?

(2) The need for a closer understanding and friendship between the people of the 20 Latin American countries and the citizens of the United States. What more can education do to meet this need?

(3) The responsibility of the federal government and the radio industry for the *educational* use of radio as the most powerful twentieth century development for mass communication.

(4) The problem of the youthful criminal and juvenile delinquency falls partly but definitely upon the agencies of education for solution. What more can the schools do to answer this growing menace?

(5) In the face of appalling casualties due to automobile accidents, we have an obligation to improve and extend safety education.

(6) As much as we may emphasize vocational preparedness and economic well-being in the achievement of the more abundant life, we know that "man does not live by bread alone." What further provisions should we make for the lifting of the cultural level of America?

(7) Floods, dust storms, and drought dramatically force upon us the obligation for vastly more education for the conservation of natural resources. Is it one of the responsibilities of education to see to it that in the future the genius of our people shall be employed in preventing rather than in meeting disaster?

(8) The demand for policies under which American citizens in general may be given reasonably equal educational opportunities. . . .

I submit two proposals for practical action in meeting the crucial issue of strengthening American democracy through education:

First, our schools and colleges should more clearly approach democratic societies in their own fundamental organization and operation.

Second, it is the duty of educational agencies in a democracy to provide the maximum of opportunity to youth and adults to study and discuss the current social, economic, and political problems with which our citizens must deal.

THE FILM IN VOCATIONAL GUIDANCE: ITS USE IN TECHNICAL EDUCATION

BY

SHEIKH IFTEKHAR RASOOL.

No one questions the utility of the cinema as an instrument of juvenile education. What is still discussed, and will doubtless continue to be discussed for some long time to come, is how to use this instrument and by what practical and technical means it can be made available to students, and what exactly its scope is.

The objects of the educational film, and it is these that distinguish it from the ordinary documentary film, should be:—

1. To cultivate observation, will, power and concentration;
2. To develop the habit of thinking;
3. To present an annotated recapitulation of knowledge gained from theory and practice;
4. In a word, to teach in a truthful, impartial and precise manner.

From the practical standpoint, the educational film should merge into the general conditions prevailing in the school or class or in the method of teaching a given subject. There must, then, be special films for the purpose; it is not enough to use extracts from general films. Active research in this domain suggests that the ideal would be to find special film libraries either for each type of educational establishment (elementary, secondary, high or trade schools) or for each subject and for each stage of a subject.

Every film of an educational character should be preceded or followed by an oral commentary by a competent person (schoolmaster, professor, industrial adviser etc.); otherwise the lesson might easily degenerate into reaction pure and simple and so defeat its objects.

Cinematographic technique must pay regard to the circumstances of school life that confront it with special problems difficult to solve at the present time (shortening of films, possible modification of the present standard width to allow of pictures

appropriate to the size of the room and the shortness of school hours). In spite of these limitations the film must keep its essential qualities.

All general considerations of this kind must necessarily underlie any examination of two special questions bearing on the employment of films in vocational guidance and vocational training.

Purpose of Vocational Guidance.

The purpose of vocational guidance is at once educational, social and economic. This influence will be exerted in the first place on the child and secondly on the people around it (parents, schoolmasters, employers, etc.).

It is mainly at the end of the compulsory school period that the influence will be exerted on the child, and at this time the aim will be to create in him an occupational atmosphere, to develop an occupational mentality, and to lay the foundation of an occupational ideal. This is what has been called 'vocational pre-guidance.' Various means have been employed to this end, and the instructional film is a valuable aid. In some cases it may even be necessary to organise visits to workshops, factories and other work places, or visits to museums or exhibition arranged for school children. These methods, sometimes of a dynamic, sometimes of a static order, have long appeared to be the only ones capable of initiating school children into the ways of life and thus preparing them for the choice of an occupation. Compared with them the film often seemed only a makeshift for the real thing.

Today we realise that this kind of visit, although certainly worth continuing, is often insufficient in itself and in some cases difficult or even impossible to arrange. It would thus seem preferable to combine these various methods of vocational pre-guidance as far as possible, leaving the educational film its due place.

The craving to see something new and to be active in movement, so strongly implanted in children and young persons, finds a common satisfaction in the film, which at the same time will be a valuable aid in teaching the history of human labour and its essential unity.

This brings us to occupational monographs which should, as it were, present as faithfully as possible a portrait of the occupation. The film would be no more than a pictorial supplement to the printed matter. Conceived on these lines, films will be an

instrument of propaganda in the hands of parents, schoolmasters and all other servants of vocational guidance.

Vocational Training Films.

All the considerations advanced in connection with films on vocational training would seem to apply to films on vocational guidance or technical education. But in these domains the film would be essentially a sort of complementary course like Drawing in certain professions. The practice of the trade, handling tools, various phases in the manufacture of an article, these are all matters that the film can bring home to the pupil. Slow motion will play a particularly important part.

For both these classes of films as for any other really educational film there are certain conditions to be fulfilled which can be summarised as follows:—

1. Collaboration between cinematograph experts and teachers, technicians and those in the trade. This collaboration will be particularly necessary in the case of technical educational films;
2. Methods of presentation must be strictly adapted to needs;
3. Sound films seem only suitable for vocational guidance;
4. Every genuinely educational film requires to be commented upon, especially the vocational guidance film, which at bottom is only a means of illustrating a lesson and should be closely related to it.

There is need for a national organisation which would draw up plans for film production to the requirements of vocational guidance and technical education. The chief task of this organisation composed of technicians and teachers, would be to select the subject-matter of the films to be produced, or to edit that of existing films, if any. Films produced on these lines are surely to be of great use in broadening the pupils' interests and helping to humanise the work of the school more completely than it has been possible ever before.

A COURSE IN QUANTITATIVE THINKING

BY

A. C. ROSANDER.

This article gives a preliminary report of a cooperative enterprise in the construction and evaluation of an experimental course in "social mathematics" which was first offered in the Bronxville, N. Y., High School during the semester ending June, 1936.

In general terms the purpose of the course is to develop a scientific attitude toward social, economic, and political problems by means of quantitative and logical techniques of thinking. More specifically, the purpose is to develop proficiency in social and economic and political thinking with regard to (1) sources of data, (2) analysis of data, and (3) interpretation of data; and finally, to develop modes of behavior implied in this type of thinking.

These specific objectives, it was thought, could not be obtained by any modification of the usual course. It was believed that the course must have a framework and a content different from that of the usual high school course either in mathematics or in social science. Various methods of approach were investigated. It was finally decided to organize the curriculum in terms of the major roles of the individual in his every-day living. These "functional roles of the individual" represent areas of experience common to all persons. There are many of these specific roles, but they can be telescoped into a relatively small number of essentially different roles, as follows:

1. The worker: all roles involving economic production and creative work.
2. The buyer: all roles involving the buying of goods and services, such as purchaser, customer, shopper.
3. The consumer: all roles involving the consumption of goods and services, such as user, wearer, wastes.
4. The saver: all roles involving saving for future use, such as depositor, investor, saver.
5. The dweller: all roles involving the problem of housing, such as renter, home-owner, transient, resident.

6. The voter: all roles involving political activities, such as officeholder, witness, party worker, juror.
7. The player: all roles involving active participation in recreational activities.

And so on.

There are obvious advantages in thinking of the curriculum in these terms. Since most of the roles are common to both youth and adult, the conflict between the child-centered and the society-centered school may be avoided. Under this plan all partial views, such as interests, activities, needs, deficiencies, the new social order, take their places as part of a larger pattern. The purpose of specific courses at the secondary level then becomes one of developing proficiency in these roles. The emphasis will be neither on the child nor on the topics.

It is evident that several of these roles might be used as units in the construction of a given course. So far as quantitative thinking is concerned, certain roles have more numerical implications than the others. Such roles would be the worker, the buyer, the saver, the property-owner, the taxpayer, the voter, and the family member.

The experimental course represents an attempt to integrate certain mathematical principles with significant phases of the social sciences, the unifying element being the functional role of the individual. From mathematics were selected such concepts as average, percentage, ratio, sampling, variation, correlation, trends, and index numbers. From the social sciences was taken material which would develop understanding and proficiency in several functional roles—material bearing on such vital questions as employment and unemployment, wages, family incomes and budgets, numerical measures and standards, prices and purchasing.

The material might be organized in at least three ways. In the first method the mathematical content would be treated in separate units and would be a prerequisite to the social science units. In the second method, the course would be organized in terms of mathematical concepts, the actual content being examples from social, economic, and political issues. In the third approach the course would be organized in terms of the social roles of the individual, the content being an integration of mathematical principles and social problems of special individual significance. We began with the first method but abandoned it for the third. From his work with it, the writer believes that the second method also has educational possibilities.

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7. The player: all roles involving active participation in recreational activities.

And so on.

There are obvious advantages in thinking of the curriculum in these terms. Since most of the roles are common to both youth and adult, the conflict between the child-centered and the society-centered school may be avoided. Under this plan all partial views, such as interests, activities, needs, deficiencies, the new social order, take their places as part of a larger pattern. The purpose of specific courses at the secondary level then becomes one of developing proficiency in these roles. The emphasis will be neither on the child nor on the topics.

It is evident that several of these roles might be used as units in the construction of a given course. So far as quantitative thinking is concerned, certain roles have more numerical implications than the others. Such roles would be the worker, the buyer, the saver, the property-owner, the taxpayer, the voter, and the family member.

The experimental course represents an attempt to integrate certain mathematical principles with significant phases of the social sciences, the unifying element being the functional role of the individual. From mathematics were selected such concepts as average, percentage, ratio, sampling, variation, correlation, trends, and index numbers. From the social sciences was taken material which would develop understanding and proficiency in several functional roles—material bearing on such vital questions as employment and unemployment, wages, family incomes and budgets, numerical measures and standards, prices and purchasing.

The material might be organized in at least three ways. In the first method the mathematical content would be treated in separate units and would be a prerequisite to the social science units. In the second method, the course would be organized in terms of mathematical concepts, the actual content being examples from social, economic, and political issues. In the third approach the course would be organized in terms of the social roles of the individual, the content being an integration of mathematical principles and social problems of special individual significance. We began with the first method but abandoned it for the third. From his work with it, the writer believes that the second method also has educational possibilities.

In the two units finally developed, the roles employed were those of the earner, or worker, and the buyer, or purchaser.

THE EARNER

- Chapter 1. How are occupations changing?
- Chapter 2. What conditions affect one's chance of getting employment?
- Chapter 3. What is the extent of unemployment?
- Chapter 4. How do incomes vary in the United States?
- Chapter 5. What are the conditions of work in various occupations?
- Chapter 6. Applying what we have learned.

THE BUYER

- Chapter 1. How buying today differs from that of the past.
- Chapter 2. Determining one's needs.
- Chapter 3. Obtaining information about goods and services.
- Chapter 4. Understanding different methods of buying.
- Chapter 5. Protecting the buyer.
- Chapter 6. Applying what we have learned.

Every chapter of each unit consists of reading material, tables and graphs, learning exercises, suggested activities and projects, a summary of mathematical principles, a summary of social or economic facts, and a test. The reading matter gives concrete experiences or dramatic episodes which aim to arouse interest in some vital personal or social problem. The tables present relevant numerical data, which are analyzed by simple mathematical processes. The learning exercises make it possible for every pupil to apply every principle immediately, not only to discover what he does not understand, but to amplify his understanding of the text materials. Sometimes several exercises deal with different phases of the same principle. A definite attempt is made to emphasize a single mathematical principle in each chapter. At the end of each chapter are summaries and a test. At the end of each unit is a chapter designed to develop further proficiency by applying the various principles to first-hand investigations by the pupil.

The purpose of the unit on "The Earner" is twofold: to help the pupil to consider some of the basic problems of vocational choice and to enlighten him with regard to the national significance of such problems as unemployment and income. The purpose of the unit on "The Buyer," is also twofold: to help the individual to become a rational purchaser and to stress the social and economic significance of various standards of living and of everyday scientific buying.

Because most of our time was occupied with the construction of the course, evaluation has not been carried as far as it ought to go. According to our experience, the problem is not one of finding enough units, materials, and activities, but one of selection and organization. In our case, several shortcomings in the type and organization of materials were evident. They centered in subject-matter which was too difficult, not well presented, and inadequately illustrated by examples, particularly pictorial or graphic examples.

On the positive side, with most of the materials interest and activity were maintained, often at a high level. Our experience indicates that if such concepts as mean, correlation, index numbers, and sampling are properly simplified and taught in connection with a socially useful content, they can be grasped without difficulty at the high school level.

Our conclusion is that the approach outlined above has great possibilities. It is to be hoped that others will see the value of experimenting with it further.

—THE EDUCATION DIGEST.

TEACHING ENGLISH FOR THE MATRICULATION IN BEHAR

BY

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I must begin by saying that in teaching English we must keep before us the purpose, namely, that we are to teach English. Unfortunately, in most cases, the candidates for the matriculation examination are taught with a different purpose, which is to help the students pass the examination. To the extent this smaller purpose determines our real purpose is defeated, and I have had ample evidence to say that even the limited purpose of success in the examination is not served. The more is the pity!

The purpose in this case, as I have said, is to teach English. And we have to attain a certain standard of efficiency. The standard has been laid down in the courses of study of the university. The students should be able to read and understand English of a standard indicated in the recommended books; they should be able to write clear, simple and correct English, in their own words, and should be able to apply the rules of grammar. They should read the prescribed books carefully, so as to be able to answer critical questions and explain passages with reference to the context.

All this is said in a few words, and this statement reads very simple and is in no way difficult to understand. How difficult it has proved in practice is demonstrated by the fact that on the average about 70 per cent of the students in the Matriculation class are sent up to sit at the Matriculation Examination, and that only about 60 per cent of the candidates pass in English. This means a loss of 58 per cent. If the students in Class X are taken into consideration, the average efficiency of the teaching of English in Classes X and XI of our schools will work out at 35 per cent or so. This is a very low average,—much too low for us not to be ashamed of.

This is a deplorable position, although all the time the utmost has been done to prepare the students for the examination. There must be something radically wrong with this practice.



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The examination has monopolized most of the economic and social importance of our work. It looms large before our eyes and too near to them to allow us to see anything beyond it.

We cannot forget the examination,—our bread is so closely connected with it. Society may refuse to feed us if its children fail in the examination. This is what we fear. And with this fear in our mind, we have, in our anxiety for bread, aberrated far from the original purpose of teaching. To this is due the loss of 65 per cent of efficiency.

There is the necessity of a test and a recognition of efficiency. The examination supplies these two needs. We have no quarrel with it so far. Our aim is different, and the examination is there only to test to what extent we achieve that aim. It only tests our work for a stamp of efficiency, and does nothing more. I wish it did more. The University has a great responsibility, for it has been wielding the strongest possible influence over the schools. It has little to do with the schools direct, while the effect of the examination on the schools is direct and definite.

I think it is possible to prepare a student, just good for Class VIII, to pass the Matriculation Examination, if the questions were known a few months previously, but after the examination he will be found the same, as before, just good for Class VIII, although he will then sport a Matriculation pass certificate. It is unlikely that the University will allow us to make an experiment with its question papers, to prove this statement, but this hypothetical case gives us the idea what a mere stamp of efficiency may mean. The actual may not be as bad as that, but it is not always the real goods that receive the stamp. It has been possible for an inferior student to pass in a subject in the University Examination by preparing a few selected questions.

Preparing pupils for an examination is called 'coaching.' If this work is done in a public institution, it may be allowed to be called 'training.' It is not educational work, whatever else it might be. We are educationists, and it is not our work to prepare candidates for an examination. Our work is to develop in our students true efficiency which alone can stand the strain of any emergency. This cannot be achieved through 'coaching' or 'training.'

This being the principle, the simple thing which is before us is that our students must learn English. They must be able to read and understand English and to express themselves accurately and correctly in this language. When they have earned this efficiency they will be able to answer the questions of not one kind only, but will be equally good with those of any kind, provided

of course, that these are within the scope of school work. We may not quarrel with the questions. We may brave any examiner, if he is reasonable and does not ask of the students a critical study of Byron or Milton. If our work is sound our students will do well in any reasonable test.

The index of efficiency in a language is in original composition. We have not acquired a language unless and until we are able to express ourselves in it. It is found that if our students are required to write an essay or a letter on any subject they are at sea unless they are able to make use of some got-up matter. Most of them tumble about helplessly. They do not know how to begin and how to end a composition. They appear to possess little of their own. They cannot collect their thoughts, nor facts known to them, nor ideas they possess. There is no method. This want of method is partly responsible for the long sentences they indulge in, and in them they get foundered. If they are only taught method and are given practice, most of them will do very well. They should not write anything without collecting the points beforehand. Many never develop in original composition for want of this practice.

It is an excellent practice to jot down the facts or points after something has been read. A better one is to write them out at length. What a student has only read, however carefully does not become his own,—not even a quarter of it,—till he has put down the ideas in his own words. Our students read a good deal, get a good lot by heart too, but on account of the absence of the right kind of practice can write little in their own words.

Original composition and this reading and writing are the chief things that demand our care. In these is the foundation of a person's efficiency in a language, and the superstructure is also composed of these, further developed and practised. It is a great pity that these have not had their share in the curriculum.

We are concerned, for the purpose of this article, with the students of Classes X and XI. There is no place in these classes for a student who cannot write a little English in clear, simple and correct sentences. He has come up to Class X after having had six years of English in the lower classes. We are concerned here with his understanding of English, and control and manipulation of ideas. We have the class libraries with many books in them. If a taste in reading is to be created, it should be done through 'interest.' The books to be chosen for the students should be interesting and easy to read and understand. Some good students may require other books, but most of the others cannot enjoy reading many of the books they get, with the result

that they become reading-shy. There are many excellent periodicals for the students, in which we find ideas and information blended in a manner that create interest in reading. Mere ability to write a few sentences correctly does not impart efficiency in a language. It is through reading that we get the manner in which the ideas may be clothed in sentences, to the best advantage.

And then the text-books are there very definitely, to be carefully read, so that the students may have a thorough grasp of all the pieces prescribed. By this I do not mean that they should be ready with the substances of all the pieces, or the explanation of each of the difficult phrases. There is a tendency to prepare the difficult parts only and to get by heart the ideas contained in a few selected and comparatively difficult poems. It should be remembered that the examiner may after all choose to select easy passages which may not have been marked as important and the students though able to answer difficult questions, will be ploughed with easy ones. This attempt is made to pass the students through preparation rather than through study. Study relates to the larger purpose and preparation to the smaller. Preparation selects and detaches things from a whole. The whole is lost, only some parts remain, and if the examiner selects a different part, the result is disastrous. Even if the examiner selects from the part done, the student's efficiency with regard to the whole being little even a pass becomes uncertain. This demonstrates the evil effect of preparing students only for an examination.

We now see that the teaching of original composition provides for the ability to collect the points and express the ideas in clear, simple and correct English. There is reading and there is writing practice. A study of the text-books gives the students a thorough acquaintance with the matter contained in them. There is hardly anything else necessary to acquire for the examination.

I have kept grammar to be discussed last of all. They made a fetish of it in the past. The present is more rational. Formal grammar has been pulled down from its high pedestal and its place has now been given to the practical application of grammatical rules. I suppose this part of the course of study is not done so badly. If the students have enough of exercises, there is hardly anything more to be done in grammar.

I shall dismiss translation with a few words only. This is of doubtful value even as a practice in teaching English. The translation method is responsible for much of what is known as "Indian English." Improved methods of teaching a foreign language have developed, but translation is still resorted to in our schools. This may be the reason why our students are not so

bad in translation as they are in composition;—a small consolation though, for the loss that is incurred in not following the scientific methods is very great. If composition, and not translation, is made the basis of the method of teaching, our students would be better in English on the whole; they would fare better in composition and would also understand the language better. There is no reason to fear that they would be weak in translation. The late Rev. P. L. Singh, one of the brilliant headmasters we have known, allowed no translation in classes lower than X. For only two years he gave the students practice in it, and even that for the purpose of the university examination. The results showed that his students were no losers on this account. We waste a good deal of time in teaching translation. It does not require much teaching if the students are good in composition.

I wish also to mention about transliteration. This has been badly neglected in our schools. We are required every day to write many Indian words in English character. A fault in spelling and a fault in transliteration are equally bad in our country.

Before I close I wish to draw the attention of my profession to the necessity of having a homogeneous class. Students who are much below the class average are misfits. Most of us have to deal with large classes, and we have no room for such students. We may do with a few of them in classes of 10 or 12. What we shall be able to achieve in their case will depend on other circumstances, but we may at least practise the art of pulling up the backward pupils if they have somehow found their way into our care. If the class is big, we cannot pay necessary attention to the backward children, and, therefore, it is unfair to the class, and to them no less, to have them. There are many students in Class XI to-day who should not be there till a year or two later.

It is only a straightforward action that is expected to produce good results. Our work is to teach English; let us do it. We cannot say that this is being done properly. If our students cannot write a simple letter on ordinary matters of life, nor an essay on a commonplace subject, we have very definitely failed in our work and we have no excuse to offer. It is true that in the university papers demands are sometimes made that can be satisfied only through memory work, but, although the remedy is not in our hands, we can still do a good deal. There is so far no reason to think that the university will not listen to us if we place our case before it. If the demands of the university have been unreasonable, instead of pointing this out, we have made attempts to meet them by some means or other. If straight-

forward work has failed to satisfy these demands, we have taken recourse to other ways. This we should not have chosen to do, for by following these other ways we have only spoiled our own work.

It is the duty of the examiner to study and to know the science of teaching and frame his papers accordingly. Otherwise, he leads the teachers astray. We can complain that this has happened. The organization of examination should be such that an examiner who has not made the necessary study may have to face elimination. Let us trust that the university will take care that its examination has no effect contrary to the purpose of teaching. It is true that the university has not much concern with the technical side of school work. That is all the greater reason why it should be particularly careful. The circumstances being what they are, we too have to be on the alert. We should speak out if the examination papers do not conform to the correct methods of teaching. If we cannot do anything better, we must at least refuse to cater to the examiner, for we have surely something greater to do. We must teach.

APPROACHING SCHOOL

BY

HELEN BOTT

Going to school is indeed a major crisis in the child's development; his unified world is broken into two hemispheres, and he swings between them, finding his place in the new strange world, and remarking his relations to the safe, familiar world from which he makes his first big sortie into the unknown. For the child's mother the crisis is scarcely less, for she is suddenly bereft of the occupation which has largely determined her life for the preceding years. It is sweet to depend, but it is also sweet to be depended on, and the beginnings of emancipation have their pangs. Yet this is the first of many separations, and to learn to accept and use the occasion is highly important for parents—first, because their attitudes will largely determine the success or failure of the child's adjustment; and second, because the soundness of their own personal life depends on their ability to come to terms with just such shifts in relationship.

Desirable attitudes, whether in ourselves or in others, are usually built up, not merely by wanting or resolving to feel and act in certain ways, but by considering carefully any situation and then selecting certain specific ways of behaving in relation to it. The approach to school, in both parent and child, is best built up through definite things seen and done. I should like to suggest certain areas of decision which parents should face, along with further ways by which these decisions may be interpreted to the child so that he learns to share in them whole-heartedly.

First comes the *choice of a school*. Sometimes this is a foregone conclusion, but in other instances there is need for a careful weighing of alternatives. I recall one mother who was concerned about her child because of a slight physical disability. She listed all the possible schools, public and private, and visited them in turn, meeting the teachers, finding out about fees, play facilities, the general type of instruction, the kind of children who were in attendance. When she had lined up all these findings on paper she took them to her husband as a basis on which they could discuss and evaluate possible choices. It is seldom that all ideal requirements can be met; something usually has to be sacrificed, and the family scale of values must determine what is most

important. It seems to me that increasingly I see young couples, often of limited means, who are willing to sacrifice in order that their children may go to progressive schools.

When this same willingness to pay for education infects the community at large we may hope for still greater advances than our public schools have made in the past. Those of us who adhere strongly to the democratic tradition in education usually feel that our children should go to the schools which the state provides. This should not, however, be a matter of putting up with what is offered, but should rather mean that intelligent parents are increasingly interested and responsible for the public school system. This may be translated into willingness to serve on boards of education, to work in parent-teacher associations, to keep abreast of educational ideas—in other words, really to take responsibility for education. The most promising educational experiments today seem to be those within the regular system where parents are being motivated to take an active part, under competent leadership, in the plan of education to which their children are exposed.

I take responsibility for the school to which I am going to send my child first of all, by getting to know it—not in any perfunctory way but by really getting acquainted with the teachers, with the physical surroundings, with the types of activity engaged in, with the social and economic background of the community which the school serves. In assessing these, two things seem to me to be of primary importance. I would be concerned first of all about the kind of friendships which my child is likely to make. Is the teacher who governs the little world of the schoolroom an interesting person? Will she stimulate and intrigue and liberate the mind of the child I am entrusting to her care? Will she give him sympathy, understanding, and a sense of security? Heretofore, the home has set the child's standards of value; it is high time that he get another mature person's slant on the world in which we live. I don't want this to be identical with mine, but I want it to reinforce and throw into relief what he already has. I want, above all, a sense of happiness and purpose to radiate from the person who now shares with me the task of guiding my child's development.

The corollary of all this is plain, though I have not always lived by it. If a teacher is so important, I shall want to know him in order that I may give him the best of my experience just as I expect that he will give the best that he has to my child.

Then, too, I shall be interested in the friends my child makes, and in the homes they come from. It is important for him to

learn to know and like all kinds of children, especially those with tastes and interests different from his own. At the same time, I don't want him to have to shed too many friendships by reason of divergent interests as he grows older. I would like to feel that he carries from stage to stage some of the friendships formed in these early years. In a community where parents are friends, the opportunity for persisting friendships is greater than where association is limited to the school itself. A network of social relations through the community can thus underlie many of the school's activities, building up morale in the school constituency.

In addition to these human values, I shall be deeply concerned about the kind of activities which will be engaged in at school. Will the children be chained to desks or will they be allowed to move about as their work demands? Will they have to be quiet or will they be allowed to talk reasonably in relation to what they are doing? Will they be given only "book work" or will they be taught to use their heads through their hands? Will the activities be individual and competitive or will there be opportunity to learn social adjustments through cooperative effort? Will there be abundant occasion for physical development through games, physical training, supervised play? Will the work my child is asked to do point him toward the kind of life he lives outside school? These and more are some of the questions for which I shall be seeking an answer when I send my child to school.

But here, as with social relations, I shall not expect the school to answer independently of my efforts. I shall try to work cooperatively with teachers and other parents to find answers.

So much for my adjustment to the school situation. Let us look now at what may be done to prepare my child to accept and adjust himself to the new situation. Here I want to keep clearly in mind that I am dealing not merely with one novel situation but with a first major adjustment to the new and the challenging, which will set a pattern for all later reactions to novelty. Two principles seem worth respecting here—the first, that of *gradual accustoming*; the second, that of *increasing responsibility*.

Shock has its uses in learning but in the main an easy, unhurried acquaintance with new surroundings makes a more favorable beginning. The child may be taken to school to visit, or he may meet the teacher in the familiar setting of his own home. I remember years ago in a country school how a strange face would occasionally appear, a tiny child under the protecting arm of an older brother or sister. For a half day or so he would sit, shy and round-eyed, watching the strange doings of this new world, undisturbed except for the admiring attentions of the other

children or the friendly inquiries of the teacher as to his new pupil-to-be. Or, on that round of ceremonial visits in which the teacher sampled all the spare beds of the neighborhood, he would get a first acquaintance with the little children, rising crop of next year or the year after. One wishes that this friendly informality could be recaptured in our urban life.

Older children are often the most effective mediators between the new world and the old. I recall a young cousin who had, I suspect, suffered from her mother's well-meant solicitude in paving the way for her in school. When a younger brother reached school age, she insisted on taking charge. She took him to school, got him placed in the preferred room, arranged for his books at bargain prices, and finally advised him as to how to hold his own with the strange children. Whether we introduce the child or delegate this to another, consideration for the child's feelings should determine. We shall be concerned above everything else to give him the reinforcement and encouragement which will make him equal to a strange and demanding situation. We shall never commit the unpardonable offence of weeping or kissing him—or her—at parting. Sentimental gestures have lost their place in this modern world. We shall think always and foremost of how we can give the child confidence so that he can learn to do without our immediate presence, facing his own decisions and learning to act independently.

I suspect that children are prejudiced for or against school long before they go to it. One mouse of a child, preparing to go to school, said to his mother, "Do you think she (the teacher) will hit me the first day?" This shows how the teacher's rôle was thought of in that community, and presumably the home in question was quite prepared to reinforce the sanction of the "big stick." Instead of dreading or thinking casually of school, children may learn through our attitudes to think of school as the entrance to new and rich experiences. We do not need to labor the point, but as much by what is implied as by what is said we can give the child a sense of privilege—a true appreciation of the great gift of learning.

Privileges have their correlatives in responsibilities, and increased responsibility is the seal of development. In the face of school the child's routine should be thought through with him and adapted to meet the needs of school. Early bedtime to compensate for the initial strain of regular work, prompt rising to be ready without hurry and confusion, promptness for meals on the part of both the school child and the household—all these points may be dealt with cooperatively by all members of the

family in consultation. These are the things which either make for smooth-running or defeat us in family life. The child may get a sense of dignity and importance if he realizes that these things are not required of him willynilly but that he is given a part and expected to discharge faithfully certain plain duties in relation to the family situation. As the routine is adapted to his needs, so he is to play his part. He will be expected to show a new sense of independence in respect to his person, his property, and his actions. His new-found freedom may go to his head at first, but patience and a humorous understanding of his difficulties will steady him to a new responsibility.

A thorough medical check-up may well be a prelude to entering school. Unsuspected defects, such as eyesight, which call for special classroom attention, can be discovered in this way, and much effort and suffering avoided. If, on the other hand, the child is given a clean bill of health, he can go forward with added confidence. Cooperation with the school physician and nurse, and understanding of the purpose of their later examinations can be explained to the child in relation to the care which he has been accustomed to receive from his own familiar physician. ,

An important way to recognize and accentuate change of status is through the child's money allowance. His need for money increases with school; car-fare, lunches, supplies may all be needed, not to mention the odd treat. We may dole out money when he asks, or we may buy for him what he needs; but is this not a good opportunity to give him a chance to begin his own spending in a serious way? After family consultation, a tentative amount should be set to meet the child's anticipated needs. The use made of this allowance should be periodically reviewed to see that the amount is adequate and to help the child in his selection of values—that is, in learning how to spend.

Clothes are an important aspect of increasing responsibility. School means new and suitable clothes, and this in turn should mean planning, consultation, and choice rather than passive acceptance of something done by someone else. Little boys have a strong sense of protective coloring, their one desire being to escape the invidious distinction of being different. Little girls are not troubled by this and like, as a rule, to be noticed for their clothes. What matters is not so much what kind of clothes a child wears but what they mean to him or her. Do they satisfy a desire for beauty? Will there be pride, care in keeping them in order, a sense of satisfaction in wearing them? Responsibility develops best at the point of the child's interest. If it's in clothes, fine!

Responsibility will then be in helping to choose, subject to the mother's sense of suitability and value, but with as much leeway for personal taste as possible. If not clothes, then give responsibility wherever the school program impinges on the child's interest, whether in choice of companions, achievement in work, related activities, freedom in going alone to and from school. Wherever the urge to independent action appears, help it to grow if this is consonant with the child's development; and beware of too narrow an interpretation of what constitutes good development. If we carry responsibility, the child becomes either indifferent or rebellious. If we thrust it too suddenly on him, he may stagger under the burden, becoming unsure of himself or overscrupulous. If we *share* it with him, he carries as much as he is able and we take up the slack, constantly adjusting the load to his capacity.

When all is said, the child's adjustment to school, so potent for later adjustments by which he is to find his place in the community, is largely a matter of skill in friendship. The parent who can make friends with teachers and with children will smooth the way for her child. The child who has learned a friendly attitude through living in a home where friendship is practised will have little to fear in school. The teacher who makes friends with his children will find discipline easy and the road to learning unaccountably smoothed.

What does such friendship mean? Not a sentimental gesture, but the ability, in adults, to go beneath the surface and understand people's real needs. It is a double process; I see the person from without, but I also use my imagination to get inside his skin and try to discover how he is thinking and feeling. If I care enough to try to know people in this way, I can detect hidden fears and recognize unexpressed needs, meeting them before they have ever fully dawned in the consciousness of the child. In this way the aloofness which we have sometimes thought of as inevitable between adults and children can be dissolved; and there can grow an easy, unforced confidence which makes the sharing of perplexities and pleasures alike natural. If parents and teachers are willing to do their best to know and understand children in this way, the approach to school is sure to be a safe one.

INDIAN EDUCATIONAL POLICY: ITS PRINCIPLES AND PROBLEMS*

BY

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Human activities and institutions have to be reviewed from time to time 'lest one good custom should corrupt the world.' A critical and retrospective study of matters one is in danger either of taking for granted or of condemning thoughtlessly, therefore, stands in no need of elaborate apology. There are no doubt a few volumes, some monographs and many articles which try to tackle this task so far as Indian education is concerned, but with a few notable exceptions do little more than scratch the surface—at least in comparison to the contribution of the volume under consideration. There have been indications that a more widely conceived treatment of the subject than any which had yet appeared would be invaluable not only as a source of important facts and figures, but also as guide and stimulus to future educational development. Dr. Meston's *Indian Educational Policy* eminently provides this urgently needed information, instruction and inspiration. The light which this book will shed on the path of India's popular educational authorities cannot but be appreciable.

The author's qualifications for writing on this subject are likewise worthy of notice. The book, we are told, "has grown out of almost forty years' study of the subject and over thirty-five years' personal contact with, and participation in, the Indian educational system." The late Dr. Meston was a member of the Senate, Syndicate and Academic Council of the Madras University, for a while member of the Legislative Council and for several years Principal and later Honorary Principal of the Madras Christian College. So long ago as in 1922 the first fruits of the author's interest and investigation appeared in *Aspects of Indian Educational Policy*. However, it is not merely decades of serious study and intimate contact which put this

* Indian Educational Policy—Its Principles and Problems, By the late Dr. William Meston. Pp. 687. Christian Literature Society, Madras, 1936. Price Rs. 3-4-0.

volume in a class by itself. More than these, it is the author's ability to bring together widely scattered facts, arrange them historically and interpret them critically; it is his evident capacity to see the problem of Indian education steadily and to see it whole—in spite of the distracting details and the puzzling practices; it is the writer's clear vision, penetrating insight and scientific approach which so easily bring cosmos out of chaos. These are writ large on every one of the six hundred and eighty pages.

Plan and Point of View.

A brief indication of both the points of view and the general line of procedure adopted by the author may be of help to the prospective reader. The book is divided into two parts: Part I deals with the principles on which the policy rests, and Part II with the problems with which the policy is confronted. The survey covers a century and a half, 1785—1930. While the book touches on history, its purpose is not directly historical. What the author is at pains to state and substantiate is the educational *policy*. He believes that it is a well considered and clearly defined policy alone which can redeem education from what is haphazard and unrelated and provide a foundation on which orderly advance may be based. To this end he shows in the first four chapters how a policy grew up between the years 1785 and 1854, how it came to be accepted by the State in 1854, and how it operates in the Provinces of British India. He first disentangles the various strands—as they are to be found in Madras, Bombay, Bengal and N.-W. Provinces—which were ultimately woven into the texture of an educational policy. "Provincial activities in this period having arisen, they took like streams their separate courses, till at last in 1854 they united to form the one great flow of educational policy which began then to make its way through every part of the land." The second stage covers the period 1854 to 1920 during which time the principles officially laid down on July 19, 1854, were confirmed and extended. "What was laid down in 1854," says Dr. Meston, "was examined in 1859, in 1883, in 1904 and again in 1913, and as often as it was examined, the underlying principles set forth in 1854 received confirmation." Chapter IV dealing with the third stage shows the need for the voluntary adoption in the provinces of those principles which had hitherto been enforced by the authority of the Imperial Government. In the fourth stage the educational policy is seen to afford not merely a few

principles which are fundamental to a living system of education in India, but a body of principles with which not merely the education but the destiny of India is intimately linked. It is the author's firm conviction, repeated in different words in several parts of his book, that "in accepting an all-India educational policy which the long years have fashioned for her use, India comes into possession of that which opens to her opportunities for world-wide service."

What then is the nature of this much talked of policy? Dr. Meston answers: "The education of the country was to be advanced by the State welcoming into a common partnership every stable and approved educational agency. Inspectors appointed by the Government would satisfy themselves as to the stability and suitability of the institutions maintained by the different agencies, and would tender advice to those who conducted them. At the same time the State accepted the responsibility of controlling the whole system through provincial educational departments, of taking the initiative, of providing adequate inspection, and of encouraging all approved managements by satisfactory financial support. Further, it set before itself the plan of withdrawal from the status of manager while discharging that of controller. And it pledged itself to adhere to the principle of religious neutrality through all the ranges of its educational administration." (P. 135 and elaborated on pages 157, 158.)

Principles in Practice.

In the second part of the book, which covers 500 pages, Dr. Meston deals with the question—Will these precious principles work? Are they adequate to the situation of to-day? In answering this question, the author looks at considerations which are of the very nature of an educational system which lies at the root of its being and its well-being. The problems of Control, Management and Finance—problems of administration—are discussed most comprehensively in the first three chapters. Next is taken up the consideration of vital problem which arises out of conditions specifically Indian—the State's religious neutrality and the popular desire for religious education. Chapter V is devoted to showing what can be done to provide the country with a sufficient body of well-equipped teachers, and Chapter VI to pointing out what can be done to rescue it from the blight of illiteracy. In the next chapter the author dwells on what education can do to meet the fresh and changed demands of

administration, nationhood and culture. The examination of these nine problems—and the treatment is characteristically patient, purposeful and penetrating—reveals the fact that “the necessary principles are identical with those which, in a different setting and with different emphasis, began to operate in 1854, and to which the conditions introduced by the legislation of 1919 constituted an insistent recall. They have within them the power to place at the disposal of India a true and sound nation-building service.”

Educational Finance.

Dr. Meston proves beyond the shadow of a doubt that the State's educational policy is wrong and fundamentally false to its original intention. To consider only the financial aspect: Having first shown that on educational grounds the term ‘model’ is misapplied when it is given to Government schools, he describes how on financial grounds one is driven to the same conclusion. This he does by detailed and careful analysis. Take Primary and Middle schools. The Boards of Madras, Bombay and Punjab educate in their schools about 12 times the number educated by Government, and the cost is not three times what Government allots to its own institutions. In collegiate education, he shows how of the 61 lakhs which the country has to spend, 67 per cent is spent on 22 per cent of the students and 33 per cent on the remaining 78 per cent, and asks “Could the wit of man devise a more surprising allocation of public funds?”, and suggests that the figures seem to say “The more you do for the education of India, the less encouragement can you count from the State.” This is his considered conclusion. “At whatever level of educational endeavour we look,—collegiate, high school or elementary—we find the same fact confronting us. There is a differentiation of financial treatment which in the realm of higher education favours colleges and schools under State management, and in the realm of elementary education favours schools under Board management. The balance at no level tilts in favour of private effort. It gives to the agency which is bearing the heaviest burden the smallest encouragement. And by this mode of finance it makes the State in effect, what it cannot possibly intend to be, a retarder and not an accelerator of educational advance.” What educational advance demands is what the satisfactory utilization of the taxpayer's money requires, but to the question whether provincial revenues are being used to the best advantage for the spread of

education we are thus obliged to say "No, not at all." Dr. Meston enumerates four deplorable results issuing when the State as controller has financial relations with itself as manager. "First, the State allocates to itself a very large amount of provincial money for the education of a comparatively small number of students. Second, it allocates this money to itself so that it may be the manager of educational institutions when there are numerous other capable managers available. Third, it has only a small amount of provincial money to allocate to itself for the purpose of control, so that this function which is peculiarly its own it is unable to discharge with effectiveness. And fourth, it so allocates provincial funds that there is a marked inequality between what is assigned to itself and what is assigned to other managements. A relationship which issues in such consequences is clearly one the speedy termination of which would be to the advantage of provincial finance as employed in the service of education." (P. 343.)

Helpful Features.

There are certain features which considerably enhance the usefulness of the book under review. Each section and sub-section has at the end its own reference list with the relevant point indicated against each reference. At the end of the book is a long classified bibliography containing the point of view and significant important contribution of each book. The paragraphs and sections have headings and titles which make reading interesting and reference easy. In this connection it may be suggested that in the second edition the Contents should be expanded and made more explicit by the inclusion of at least the section titles. Then there are about forty statistical tables regarding cost, expenditure, management, grants, fees whose evidence is supplemented by a summarizing comment. The index is not the least important part of a book of this nature and it has not been neglected. Finally, the price is almost unreasonably low for a book so weighty and so voluminous. Obviously the publishers desire that the cost should not stand between the book and its mission.

Readers of this book will regret keenly that the author was not spared to write the sequel to it, a volume on the working of the policy, which it was Dr. Meston's intention to prepare. The publishers report that this most remarkable volume was undertaken after his retirement and completed during a very trying illness and under great physical difficulties, but death came to

him even before the work of printing was commenced. The loss to Indian education is inestimable. However, in view of the laborious research involved in the book and the masterly treatment of the data, it is surprising that the publishers should have had reason to delay the decision of publication—thus depriving the public of the benefit of the book for almost four years.

This book of educational knowledge—and wisdom—it would be no exaggeration to say, is capable of proving epoch-making. With its authentic information and its convincing conclusions it is calculated to result in new emphases, new angles of vision, new lines of action. The book deserves to be read from cover to cover, and no one reading it can remain uninfluenced—so persuasive and powerful is the pen of this educational prophet. If there is something rotten in the state of Denmark—and not a few suspect there is—there is no better diagnosis and no clearer prescription than that which this book offers. That being so, it ought to be read, marked, learnt and inwardly digested by all who may be concerned, in any way, with Indian education and its future development.

The style is refreshingly frank and forceful and there is nothing casual or commonplace about the treatment. Experience and exhaustive investigation combine to give the procedure adopted and the conclusions reached respectable authority. Dr. Meston's *Indian Educational Policy* represents the high-water mark of educational statesmanship.

REVIEWS

The Backward Child, by Cyril Burt. Publishers: University of London Press. Price 20s.

The author of this volume is already known to the educational world. Years ago, when he was an educational officer to the London County Council he undertook a survey of the intellectual and scholastic abilities of the English children of school-going age. The results of his earlier efforts aimed at forging an instrument for measuring the abilities of school children and are embodied in the volume known as "Mental and Scholastic Tests"—a work which will remain a standard book on the subject for a long time to come. His subsequent studies published under 'Young Delinquent' and 'Subnormal Mind' present a comprehensive survey of the moral and intellectual subnormalities of the English children and constitute an outstanding contribution to education. No school teacher interested in knowing the deeper courses of crime in children and the treatment of the subnormal can afford to neglect these volumes.

The volume under review is devoted to the study of the causes of backwardness in the school children in various school subjects. The school teachers in India whose professional efficiency is judged very often in terms of their drilling the students in school subjects will find this volume of great interest and utility. For not only will they find here the various kinds of backwardnesses fully described but also the remedies suggested for these handicaps. The book is a rich mine of information on the methods of teaching various subjects to the backward child. About 10 per cent of the school children are scholastically backward. The causes of this high percentage of the backward children are:—(1) Falling birth-rate in the cultured classes as a result of which the low strata contribute more children to the schools than the cultured people. (2) 66 per cent of the backward children have a low Intelligent Quotient and no improvement in the teaching methods can improve the scholastic achievement of these children. This fact brings home the necessity of making special provision for the backward child. (3) Specific disabilities such as poor memory, inability to concentrate, poor reasoning faculty. (4) Adverse conditions of health and the general surroundings.

It is very difficult to say how far Dr. Burt's observations on English children will apply to the Indian children. So the main value of this volume to the Indian teachers does not lie in the conclusions but in the technique of research and the methods of psychological observations which the author has devised to conduct his survey.

—PARS RAM.

The Freedom We Seek. Edited by Wytte Rawson. Published by the New Education Fellowship, 29 Tavistock Square, London. Price 5s.

This volume is a report prepared by Mr. Rawson from the lectures delivered and the discussions that took place at the last World Conference of the New Education Fellowship in August 1936. This Conference was attended by 1500 delegates from 50 countries. During the perusal of this small volume the reader is acquainted with the different angles of approach to the problem of Freedom in Modern Society, the main theme of the Conference.

The first thing that strikes the reader about this volume is the novel way of presenting the minutes of a Conference in which more than fifty speakers participated. One does not find here the report of each lecture or discussion separately recorded. The editor has tried to bring about a continuity of thought between the various speakers on a particular topic. The result has been that the topic of discussion and not the speaker is brought into prominence. This adds to the readability of the report and the continuity of interest is not broken with each new speaker. The editor deserves to be thanked for introducing unity in the variety of opinions expressed in a World Conference. It is hoped that his way of reporting the minutes of a Conference will be widely imitated.

The volume opens with the attempts of the various contributors to answer the question "What is freedom?" These attempts have been made from the biological, psychological and the sociological points of view. Freedom does not consist in giving uncontrolled and unlicensed indulgence to our impulses. It consists in maintaining a subtle balance between the instincts and impulses and the demands of civilization. If a child is given true freedom he will create his own character, by controlling his impulses, forming his own habit of thought and work, and building up and following his own character. A free child learns the process of self-creation which endures for life. The chapters that follow the first review the various institutions such

as family, art, religion and economic order, in so far as they foster or hinder the spirit of freedom in the younger generation. These topics constitute Parts I & II of the volume. Part III contains reports of the various attempted reforms in schools to introduce the principle of freedom. Part IV consists of the reports on special problems. Under it there are stimulating paragraphs on the education of the African, report of the Examination Enquiry Commission, the training of teachers, the cooperation of home and school and education for international understanding.

This volume is a distinct contribution to the educational thought and should be widely read for the social implication of the new ideas in education.

—PARS RAM.

Literary Circle Annual Volume 3, 1937. Edited by S. P. Kamal. Publishers: R. S. D. College, Ferozepore City. Price Rupee one.

The Literary Circle of R. S. D. College, Ferozepore City (Punjab) have, during the last three years, made laudable efforts to create a cultural atmosphere at the college and the city in which the college is situated. This they have done through arranging weekly extension lectures for the students and public as also through organising music concerts, art exhibitions and debates. The volume under review consists of the papers read and the lectures delivered before the weekly meetings of the circle during the years 1936-37. Two similar volumes have been published during the two previous years and this is the third in the series. The list of the contributors to the volume contains prominent professors of the Punjab and the U.P. The articles in the volume cover a variety of topics. The authors of the papers were given free choice in selecting the subject they wished to discuss before the circle. It is a noteworthy fact that about 75 per cent of the articles make a direct or indirect reference to education. It only signifies that the educational reform is a topic which is uppermost in the minds of the thinking section of our country's population. While it is impossible here to summarize all the contributions, two perhaps may be picked out for their reference to education. One is Mr. Yusuf Ali's paper on "Education in relation to economic and social conditions" and the other by Professor Ruchi Ram Sahni on the "Functions of a University." "No scheme of education" writes Mr. A Yusuf Ali, "would in my opinion be sound which does not

dovetail all the different parts of education and provide plastic moulds in which different minds . . . are allowed free scope for development and expansion." Professor Sahni has stressed the necessity of creating an atmosphere of perfect freedom of opinion in the university.

The volume will be of interest to those who wish to acquaint themselves with the enlightened opinion of the day on the current social and cultural topics.

—*PARS RAM.*

A CURRICULUM FOR PRIMARY SCHOOLS

BY

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INTRODUCTION

A word of explanation is due for the revised syllabus for the primary course hereinafter outlined. The existing syllabus is narrow in scope and unpsychological in content. It is divided into water-tight subjects which have no affinity for each other. The only relation which is sought to be established is vertical, i.e., a sort of logical continuity in the treatment of a subject from class to class. It does not appear to have occurred to those responsible for drawing up the syllabus obtaining at present that a relation could be established among different subjects taught in the same class.

Another characteristic of these syllabuses is the absence of relation in the content of the subjects with the requirements of the daily life of the pupils. Indeed it almost appears that care has been taken to dissociate knowledge from life. The trend of modern education, however, has come to value knowledge in direct proportion to its utility for practical needs.

The limited scope of the syllabuses is evident from the absence in them of subjects like hygiene, local history and tradition, which are admittedly more important than the knowledge which is keenly stressed in school and quickly set aside as useless lumber after the schooling is over.

Another patent defect in the existing curricula is the stress laid on mere book-learning. No place has been given to self-expression either as a natural propensity of child life or even as a help to the understanding of the very knowledge in whose interest it is being suppressed in our schools.

It is defects like these that the proposed syllabus is intended to rectify. An attempt has been made to associate related subjects together. Due emphasis has been laid on *expression* through language, drawing and handwork. The scope has been widened in conformity with the requirements of life and with due regard to the stage of development of the children for whom it is intended. The provision of hygiene requires no apology. An elementary knowledge of the history of the past gives the child a consciousness of the heritage which has come down to him from his ancestors. Here too, within the limited scope available for the purpose, an attempt has been made to trace the development of society rather than the causes and results of wars and other such facts which generally pass for history.

It is, however, in the method of treatment in certain subjects and in the omission or inclusion of information in others that the departure from the existing curricula is most marked. It is a four-year course, which,

while it will facilitate transition into upper grades for those who may have the ambition to go forward, will prove a self-sufficient course for the larger majority whose limited means may stand in the way of their education beyond the primary stage. Four years' course is admittedly a brief period for effective elementary education, and has been adopted only as a compromise in view of the paucity of funds available to the Government as much as in the interests of poor parents who cannot afford to keep their children longer at school.

The Education Department of Jammu and Kashmir State adopted in March last a syllabus on these lines submitted to it in 1930. The scheme outlined here is, in the main, a simplified modification of this syllabus and is believed to be a further improvement thereon.

In the first three classes all subjects except the language are intended to be taught orally and no text-books are to be placed in the hands of boys. It is only in the fourth class that text-books in arithmetic and social studies will be provided for school children to develop in them a capacity to use books on allied subjects after their schooling is over. It will, however, be necessary to provide literature for teachers in the form that will help them to give effective teaching on the new plan.

The medium of instruction will, it is hardly necessary to point out, be the dialect or language which children can readily understand and will, therefore, vary from place to place.

The authors believe that the syllabus can be adapted to the requirements of any place in India by minor changes being introduced in Social Studies.

Those interested in the problem are earnestly requested to communicate their valuable suggestions and criticisms to us so as to enable us to verify or amend the results of our experience in this vital question, and to take in hand work on these lines for the next higher stage.

FIRST CLASS.

1. Language (Mother-Tongue).

- (a) *Conversation.* 1. Movements in classroom and school.
2. Objects in classroom, school, street and home. 3. Pictures (simple).
4. Movements and plays.

(b) *Reading.* 1. Recognising simple and easy compound letters at sight. 2. Reading the text correctly and (unseen) sentences embodying words read in the text.

(c) *Writing.* Alphabet after some work under Expression is done. Takhtis or tablets to be used.

2. Arithmetic.

1. Sequence of Nos. up to 100. 2. Numeration up to 100 through counting common familiar objects. 3. Building up of Nos. up to 100 through concrete objects, units of groups being 10 and sub-units of one. thus:—

(a) 1 - 10. $8 = 7 + 1 = 6 + 2 = 3 + 5$, etc. $7 + ? = 8$, $5 + ? = 8$, $? + 2 = 8$.

(b) $10 = 1 \times 10$, $20 = 2 \times 10$, $30 = 3 \times 10$, etc.

$24 = 2 \times 10 + 4$, $? \times 10 + 4 = 24$, $? \times 10 + ? = 24$.

Notation up to 100.

4. (a) Addition of concrete numbers, sum not to exceed 100

(b) Subtraction as a problem in addition (concrete objects), Nos. not to exceed 100. $15 + ? = 20$, $85 + ? = 93$, $45 + ? = 88$.

$$\begin{array}{r} 88 \\ - 45 \\ \hline ? \end{array} \quad \begin{array}{r} 93 \\ - 85 \\ \hline ? \end{array}$$

(c) Multiplication as repeated addition, construction and memorising of tables 10×10 , application of tables 10×10 in four-fold form to concrete objects and situations:—

$7 \times 8 = ?$; $? \times 8 = 56$, $7 \times ? = 56$, $? \times ? = 56$.

(d) Division as a process of grouping and application of tables as in (c) above. Divide 56 apples among 7 boys. Divide 64 apples among 9 boys. How many does each get? How many remain over?, etc. All questions to be concrete and related to the actual life of the child or to be within his immediate experience (classroom, street and home).

3. Expression.

(i) Dramatic plays involving use of very easy language and use of numeration.

(ii) Forming letters and words with sticks, grains, etc., placed on the ground or a board studded with fine clay.

(iii) a. Cutting letters already written on paper.

b. Cutting paper to the shape of letters and words read [coloured paper and scissors to be used, outlines in dots to be corrected by the teacher].

(iv) Copying in sand and clay letters and words read.

(v) Cutting with scissors, pictures of animals and birds in natural colours from picture sheets supplied; pasting these on paper or cardboard. Encourage reading pictures.

SECOND CLASS.

1. Language (Mother-Tongue).

Text should include lessons on:—

(i) Fairy tales, (ii) Historical and legendary characters, and (iii) Nursery rhymes.

Reading. (a) Recognising compound letters at sight. (b) Reading the text accurately and (unseen) sentences embodying words read in the text, understanding the text and sentences read.

Writing. Alphabet, combinations of letters.

Easy sentences from the text. Takhtis or tablets to be used.

2. Arithmetic.

Numeration and notation up to 1000.

The following operations (the final results should not exceed three digit Nos.):—

1. Addition. 2. Subtraction as a problem in addition. 3. Multiplication as repeated addition. 4. Multiplication and Subtraction as processes rather independent of addition. 5. Division as a process of grouping.

All questions to be concrete and related to the actual life of the child or to be within his immediate experience.

3. Social Studies.

1. Play—Playmates, regulation of play, comrades, our duties to them.

2. Home consisting of parents, brothers, sisters (cousins, uncles, aunts), ties of blood, regulation of home life, responsibilities of members, needs of home life: *Articles of food*.—Sources of supply, means of transport in the case of local produce, subsidiary articles of diet like oils, tea, sugar, salt and milk.

Clothes.—As above, emphasizing local produce.

Water.—Sources of supply, practical, personal and home hygiene (hair and nits, nails, teeth and brush, neck, ear, wrist, armpits, toes, fingers).

Baths.—Cold and warm, soap, change of clothing, dangers of uncleanliness to cuts and sores and handling of food with dirty hands. Tidiness, pits for the household refuse, drains.

4. Expression.

Language.—Oral. (a) Conversation on the stories read. Answers to questions in simple past and present tense embodying vocabulary as taught in the text.

(b) Recitation of poems read.

(c) Dramatisation of stories read.

Hand work. (a) Familiarise boys with the drawings of natural objects such as familiar flowers, birds and grains on natural or reduced size, copy of these by boys. This should form a basis for scale, plan and map work; colours to be used.

(b) Clay models of spherical, cylindrical and conical figures and cuboids.

(c) Cardboard models of easy familiar objects like tray, box, prism, etc. (colours to be used).

Paper work—Design and flower in coloured paper to be pasted on white paper and cardboard.

(d) (Where possible) cutting with scissors and knife pictures of birds and animals in natural colours from picture sheets supplied, pasting them on paper or cardboard: encourage preservation of these in albums.

THIRD CLASS.

1. Language (Mother-Tongue).

Reading. Text to include lesson on:—

(1) Narratives as for II Class.

(2) Life in other lands.

(3) Simple poems of master writers.

(4) Specimens of letters written in familiar, popular and easy style; elaborate forms to be eschewed.

Understanding the text and books of equal difficulty.

Writing. Transcription from the text.

Easy letters and addresses. Takhtis or tablets to be used.

2. Arithmetic.

Reduction, conversion and four compound rules connected with money, weight and linear measure. Money—Rupees, Annas and Picc. Weight—Khirwar, Trak, Seer, Pav and Chhattak—or any other local weight in use. Linear measure—Yard and Girah. Numbers all through to be three-digit.

Processes dealing with measurements in money, weight and length to be actually gone through by the boys; token-coins, weights, scale and measuring tapes to be supplied. Attempts to be made to train the eye to estimate weight and distances (Seers, Pavs and Chhattaks, Yards and Girahs).

Fractional tables: $\frac{1}{2}$, $\frac{1}{4}$ —as half and quarter of concrete numbers (no tables to be memorised).

3. Social Studies.

1. The country or province (use a map), its extent, peoples, their occupations, agriculture, professions, trade, their ways of life, habits and customs. 2. Geographical reasons therefor:—Climatic—hot, cold, wet, dry, etc. Relief—mountain, plain, rivers, etc.; Produce—vegetation of each region and seasons.

3. Review the above in geographical sequence: (a) Relief. (b) Climate. (c) Products—Food—as consisting of meats, oils, starches and salts, complete food, milk, eggs, fruits; cooked and uncooked foods, regulation of meals. (d) Commerce and Industry, chief highways, chief towns, population.

4. Interdependence of people, Government, its principal activities and departments; main sources of income and expenditure.

4. Expression.

Language—Oral and written—Advanced work on the plan of Class II, use of all tenses:—stories, messages and letters; recitation of the poems and dramatisation of stories read or of familiar situations in life.

1. *Hand work*—Cardboard and paper cutting, advanced work on the plan of Second Class—lengths to natural and reduced scale, elementary idea of scale.

2. Filling in out-line maps of the country.

3. Clay models of vegetable products like potato, orange, pear, etc.

4. On the plan of Class III, drawings of natural objects like paddy plant, onion bulb, familiar flowers, etc. (colours to be used, objects to be drawn in natural colours).

5. Copying in natural colours pictures of birds and animals from picture sheets supplied. Encourage preserving these in albums.

FOURTH CLASS.

1. Language (Mother-Tongue).

Reading. Text to include lessons on:—

1. Narratives—Historical personages. 2. Plant and animal life. 3. Progressive agriculture and co-operation. 4. Popular non-technical descriptions of important modern inventions. 5. Extracts from simple literary masterpieces. 6. Poems from master writers on nature and patriotism.

Supplementary Reader—specimens of summonses, simple agreements, leaflets published by the beneficent departments:

[Health, Agriculture, Co-operation, etc.]

Writing. Transcription from the text, dictation to cultivate legible speed and correct spelling; writing letters, applications, receipts, stories, and descriptions of common objects. Filling up of postal forms.

2. Arithmetic.

Conversion, reduction and the four processes connected with weight, length, and area. Weight—tola and chhatak.

Length—inches, feet, yards and miles. Areas—square inches, square feet, and square yards.

Prices through simplified unitary method and practice; prices to be calculated according to number, weight, length and area. Interest as ordinarily calculated in the business world, i.e., compound.

Fractional tables $\frac{2}{3}$, $\frac{3}{4}$, $\frac{4}{5}$. Formulas not to be used.

$$[\frac{3}{4} = \frac{1}{2} + \frac{1}{4}; \frac{3}{2} = 1 + \frac{1}{2}; \frac{5}{4} = 1 + \frac{1}{4}; \frac{5}{2} = 2 + \frac{1}{2}]$$

Preparation and check of bills, simplified household account-keeping. Approximations in prices and measurements to be done as in every-day life. Nowhere are fractions to be used.

3. Social Studies.

Detailed study of the commerce of important articles—exports and imports, brief reference to countries commercially connected with Kashmir—India, England, Germany, U.S.A., Japan. Give an elementary idea of the world as a whole. Globe—continents, oceans. Government in relation to commerce, other activities of the Government:—Medical and Co-operative Departments. Health—sanitation, rural, urban and domestic. Air—how polluted, ventilation, deep breathing, exercise. Water—how polluted, purifying processes. Food and drink—tea and smoking. Review personal and domestic hygiene.

Citizens and their responsibilities—representative institutions [Council, Assembly, District Board, Town Area Committee, Municipality]. King and the people. Two representative kings from ancient Kashmir. Two from mediaeval Kashmir, and Dogra Government from 1846 to the present day, tracing the evolution of society and modern progressive government.

4. Expression.

Advanced work on the plan of Class III.

FOREIGN NEWS

I. Second National Conference on Educational Broadcasting.

The Second National Conference on Educational Broadcasting will be held at the Drake Hotel in Chicago, November 29, 30, and December 1, 1937.

The objectives of this Second Conference, as formulated by a committee, are as follows: (1) To provide a national forum where interests concerned with education by radio can come together to exchange ideas and experiences. (2) To examine and appraise the situation in American broadcasting as a background for the consideration of its present and future public service. (3) To examine and appraise the listeners' interest in programs that come under the general classification of public service broadcasting. (4) To examine the present and potential resources of education through radio. (5) To examine and appraise the interest of organized education in broadcasting. (6) To bring to a large and influential audience the findings that may become available from studies and researches in the general field of educational broadcasting, particularly such studies and researches as may be conducted by the Federal Radio Education Committee.

In addition to the eighteen organizations which sponsored the first Conference, the following have been selected to sponsor the second, to increase the scope of the social and cultural interests which will be represented on a nation-wide basis: American Association for the Advancement of Science, American Association of Museums, American Association of University Women, American Federation of Arts, American Library Association, American Public Health Association, Music Educators National Conference, National Council of Parent Education, National Federation of Music Clubs, and the National University Extension Association.

The American system of broadcasting, an evaluation of broadcasting from the point of view of the listener, educational broadcasting, and the future of radio have been selected as the topics of the four general sessions. Speeches on these subjects will be made by prominent representatives of education, the radio industry, and the listener, and will be followed by periods of open discussion.

As a unique feature of the Conference, to give it unity and continuity, one person has been designated as leader of all the discussions which follow the general sessions. Dr. Lyman Bryson of Teachers' College, Columbia University, has accepted this responsibility.

Each afternoon will be devoted to section meetings in which specialists in the various fields covered in the general sessions will discuss specific aspects of each of these topics. At the banquet on the second evening, the speakers will discuss the international significance of radio.

Dr. George F. Zook, President of the American Council on Education, will again act as Conference Chairman. Dr. C. S. Marsh, Vice-

President of the Council, is the Executive Secretary, and his office at 744 Jackson Place, Washington, D. C., is the headquarters for preparations for the Conference. Mr. Carl Milam, Secretary of the American Library Association, is Chairman of the Chicago Committee on Arrangements.

Those who are interested in the maximum contribution of broadcasting to educational and cultural development are invited to participate in the Conference.

(C. S. Marsh, Executive Secretary, 744 Jackson Place, Washington D. C.)

II. The Education Digest.

For the first time in the history of education in America, instructional materials such as text-books and courses of study are being carefully evaluated and the result is given national circulation. These evaluations are contained in a new feature of the Education Digest called "The Education Digest Ratings of Instructional Materials" which made its first appearance in the June issue of the magazine published at Ann Arbor, Michigan.

Because the superabundance of instructional materials makes it difficult for educators to choose materials best suited to their needs, the editors of the Education Digest are seeking to help solve this problem by providing ratings on a five-point scale for various instructional items. The ratings are made by experts selected on a nation-wide basis.

The text-books, etc., are rated on content, workmanship, interest, teachability, and attractiveness. All fields of education from pre-school through teacher-training are represented in the items rated. Several psychological tests were rated for efficiency in the September issue.

Encouraged by the fact that consumers in other fields have welcomed unbiased and scientific evaluation of items, the Education Digest is seeking to do the same for consumers of educational materials.

III. International Federation of Teachers' Associations Conference, Paris.

RESOLUTIONS PASSED.

1. "Co-operation of Teachers with administration in out-of-school work."

Teachers have, everywhere, generously responded to appeals addressed to them to adapt their school task, to the continually growing social requirements of the community.

But in the interests of their professional integrity, they must oppose any attempt to make compulsory out-of-school activities, which they have undertaken voluntarily.

Although in the interests of the expansion of popular education, teachers in many places have of their own free will undertaken work out of school hours, they regard it as a responsibility of the State to adopt an educational policy suited to the needs of adolescents and adults.

In particular, teachers are convinced of the need for the provision of adequate medical and social services which will assure to all children the best possible opportunity for a healthy life.

Where, as a matter of tradition in certain countries, teachers act as centres of local administrative life, their extra tasks should not be imposed upon them and whether voluntarily they undertake such duties or not, their professional position should not be affected.

In their desire to make an effective contribution to the social life of the community which centres round the school, teachers will strive to raise the standards of technical and general education and to inculcate respect for individual liberty and a regard for justice and goodwill among nations.

2. "Inspection of Schools."

The I.F.T.A. is of opinion that a school inspector should be regarded primarily as a pedagogic adviser. In this capacity he should inform, suggest and encourage without imposing any system.

It is desirable that inspectors should collaborate with teachers in perfecting their professional equipment and pedagogical technique. In particular, encouragement of class-room experiment and collaboration in teachers' refresher courses and psychological work applied to teaching should not be regarded as outside an inspector's work.

It is desirable that school inspectors should be appointed on the ground of educational competence and should first have served for several years as teachers so as to have personal experience of the nature of the work they are to supervise, and so as to understand children not only through books, but also by extensive daily contact.

It appears necessary that school inspectors appointed by public authorities should be able to exercise the same supervision over private schools as over schools provided out of public funds, as children should not be allowed to attend any educational institution without any control.

IV. International Congress in Paris on Primary Teaching and Popular Education.

(By the courtesy of *The Schoolmaster and Woman Teachers' Chronicle*.)

It was a great meeting of over 2,000 people, who demonstrated their political sympathies as well as their educational ideals. The applause which greeted the Spanish and Chinese representatives was loud and long; and there could be no doubt that the great majority of the French people present were whole-heartedly in favour of the Government now in power in France and were hearty supporters of M. Blum. Throughout the week references to the need for preserving democracy in the nations were loudly applauded.

* * * * *

The session was brought to a close by a great speech by M. Herriot. The power he can exercise over an audience was a revelation. With an

excellent voice, well modulated and pleasing, he played upon the meeting as though it were an instrument in his hands, as indeed it appeared to be. "You are assembled to proclaim, in a world where force even yet scores insolent triumphs, the rights and the duties of the spirit, and to proclaim also that the most productive of all realities is idealism. Much is spoken of the world economic crisis, but is not the world moral crisis even more grave?" "Never forget," he said in conclusion, "that the centre of the world is man and the child is the humanity of to-morrow. If it is too late, as I believe, to think of ourselves, think of the child. Your Congress, for which I thank you and on which I congratulate you, has been a large-scale examination of conscience as to the duty of man towards the child. May you be able to succeed in so rebuilding as to make humanity less tormented, less outraged, less distraught, and in creating a conception of war not only as an atrocity but as an object of hatred."

* * * *

The last session fittingly summed up the Congress. There were speakers representing the various nations, and each made his own distinctive and peculiar national contribution. In like manner each of the eight sections had been addressed by delegates from various countries, who brought to the symposium an account of conditions at present found, and of the ideals which had been accepted in the country from whence the speakers came. The first Section dealt with "The Philosophy of Education." The second was engaged in considering "The applications of Psychology and Sociology to Education" and the approach to the problem of the backward child was an important part of the work of this section. The third Section dealt with "Nursery Schools and Infants' Classes" in great detail, both regarding individual and class methods, experimental schools and the use of interests and activities. In the fourth Section much interest was aroused because of the Spanish speakers. It dealt with "Physical and Health Education," and an account was given of the effect upon the health and physique of children during war as illustrated by the present conditions in Spain. Of the other sections, that dealing with "National Education and International Co-operation" attracted the largest attendances. Equally attractive was the section dealing with "The Education of Adolescents After Compulsory School Age" in the various countries. France has quite recently been awakened to the importance of Physical Training as a part of education. A special minister has been appointed in the Government, and M. Léo Lagrange is charged with the control of Physical Training, Sports and Leisure. There is much enthusiasm, and great results are expected. As was to be expected, Youth Hostels and Hiking were also discussed.

V. A Royal Purchase.

Her Majesty Queen Mary has purchased a rare exhibit from the last annual exhibition of antique furniture and decorative objects of art held at the Mallet Galleries, London. It is an elaborately inlaid tea caddy with tassie medallion portraits of George III and Queen Charlotte, George Prince of Wales and Fredrick Duke of York. Originally this ornate example was commissioned by the Bath Corporation as a gift to Queen Charlotte. Her death, however, in 1818 prevented the present from being made. (From *Tea News and Views* issued by Indian Tea Market Expansion Board.)

VI. When the Dalai Lama Drinks Tea.

The ceremony of tea drinking is an important part of the New Year celebrations in Tibet. All the country's religious and secular dignitaries headed by the Dalai Lama participate in this function. An article compiled from the memoirs of a member of the recent British Political Mission to Lhasa, which appeared some time ago in the *Sunday Statesman*, contained a vivid description of the celebrations. As the Dalai Lama approaches his high throne at the end of the hall where the New Year rites take place, the article reads:—"He takes off his cap and prostrates himself three times before the throne, then offers a scarf. Tea is served in a gold tea pot for the Dalai Lama, and in silver for the rest of the company, each of whom produces his own wooden tea cup. The Dalai Lama's tea is first tasted by a monk official as a precaution against poison." (From *Tea News and Views* issued by Indian Tea Market Expansion Board.)

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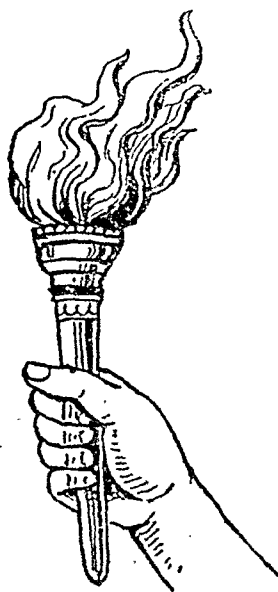
Boil fresh water. Warm up a clean pot. Put in one teaspoonful of good Indian Tea for each person and one spoonful of sugar. Immediately the water boils, pour it on the tea. Let the tea brew for five minutes; then pour it into cups, adding milk and sugar.

VOL. II

NO. 11

THE INDIAN JOURNAL OF EDUCATION

MANAGING EDITOR:
D. P. KHATTRY



NOVEMBER, 1937

ALL-INDIA FEDERATION OF
EDUCATIONAL ASSOCIATIONS

POST-BOX 52, CAWNPORE

PRICE ANNAS EIGHT

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Editors' Note

The Editors will be glad to receive contributions on all matters educational and particularly invite for publication (a) authoritative articles on educational topics; (b) short articles dealing with educational research; (c) accounts of educational experiments; (d) articles containing statistics and their application to the solution of educational problems; (e) short notices of original works; (f) news of interest to educational workers.

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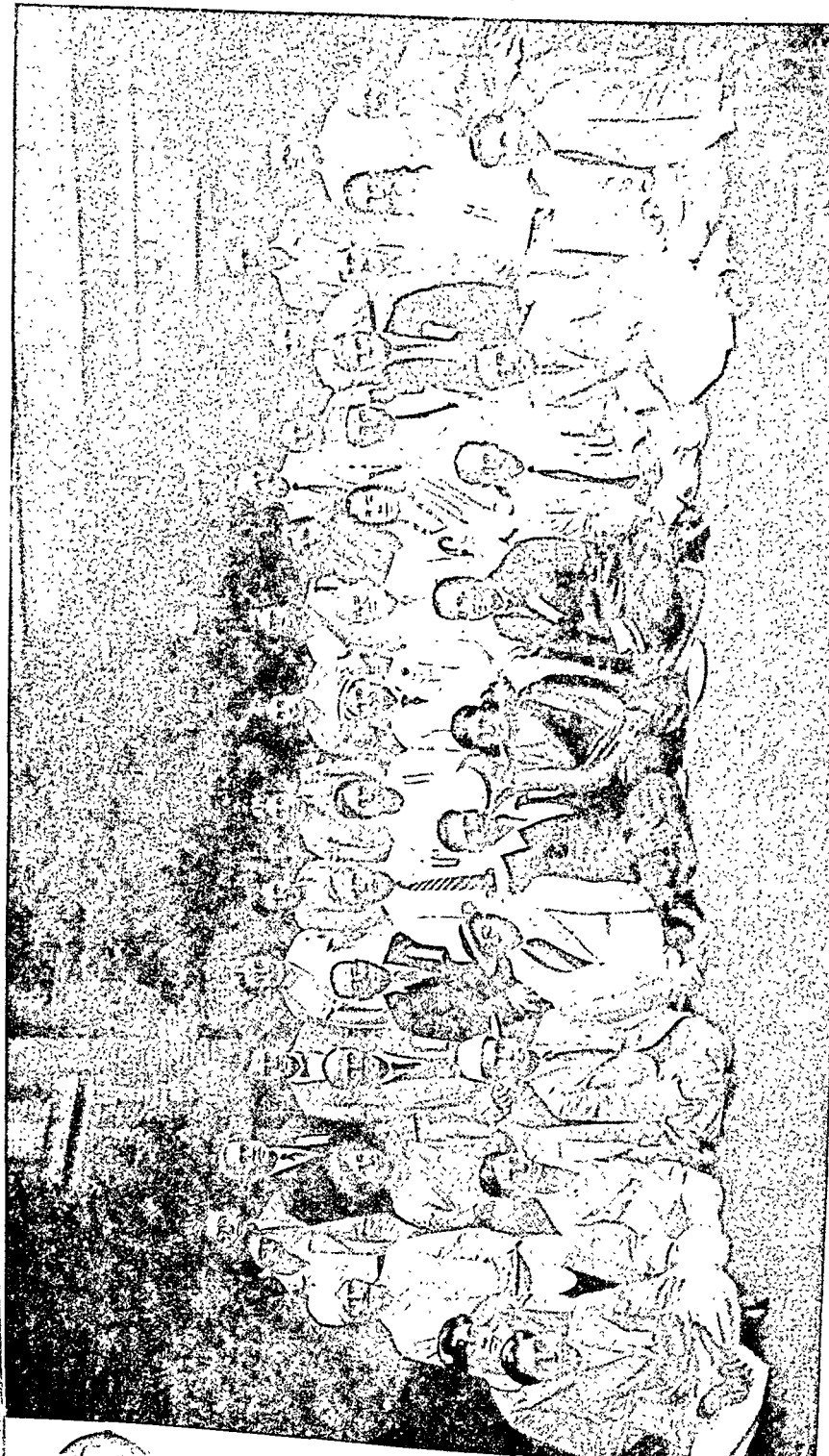
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Indian Journal of Education

Vol. II

NOVEMBER 1937

No. 11

PROBLEMS OF NATIONAL RECONSTRUCTION

BY

DR. SIR HARI SINGH GOUR, M.A., D.Litt., Bar-at-Law.

*(Extracts from the 15th Convocation Address of
Nagpur University.)*

A reaction has set in our national development. The old ideas have been forgotten and new ideas embraced, with the result that a dark era in our national advance has now set in, from which we have not yet emerged, in spite of our contact with the vigorous West and its example and patient labour in the search for truth from which our students have not in truth derived the maximum benefit that time and money spent upon their education might have justified. The fact is that our minds still remain embedded in our frozen social system. The religious, political and social reaction that marked the expulsion of Buddhism from our country killed creativeness in us, and we were taught to look only backwards upon a fancied past, the glory and wealth of which had deluded our grasp and hindered our way to recovery. This new age dawned with the deification of the dogma and with it the sharp cleavage of society into provincial and linguistic communities, and with the stultification of cooperative thought and coherent activity, we as a nation became extinct. It has given place to individual life, which as an irremediable evil is to be despised and not encouraged, because it throws round us a mere *maya* or illusion, which obscures our vision to the clear perception of spiritual truths for which we must depend upon the keener insight of the Mahatmas and the Moulvis. This reaction has changed the old order and it has given place to the new one in which we yet find ourselves. The old universities were closed and new pathshalas were opened

to preach and develop the new cult of which the first fruit was the Arab and the Moghul conquest of India, followed by the inroads of other nations, who have since exploited this country. A similar fate following a similar psychology has befallen other countries, one of which is at the present moment undergoing its penance in the Far East.

New Responsibility.

So far as our own country is concerned it is an occasion for satisfaction that for the first time in our chequered history a new order has now been launched and the political government of this province, as of many others, has been entrusted to our own hands. It throws heavy responsibility upon our leaders to see that the new generation does not repeat the mistakes of the past, and that a healthy and stimulating effort is brought into existence to impart real knowledge and develop originality of thought and research in our educational institutions. There is no merit in a mere condemnation of the past unless it throws the necessary light upon our human furrows and frees us from the attachment of faiths and dogmas that we have inherited, and which have blinded us to the reality and realization of Truth. A new habit has to be formed, which is not possible when the light of the University is implanted in the cavernous darkness of deep ignorance. Our new Government is, I understand, at present engaged in solving the problem of this ignorance. I hope its effort will bear fruit, for with the education of the masses there would spring into existence a new life creating a longing for better and higher education than we are able to impart or receive in our immediate surroundings.

In the great Universities of the West, with a much more advanced and progressive society, the youth receives his primary education and culture from the example of his parents and guardians, his relations and friends, in his most formative early life, long before he enters the portals of the University, where the same ideals are pursued and developed and education received and example followed of the professors and senior students drawn from the midst of productive and constructive stratum of society.

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Problem of Unemployment.

We all know that the times are not now as prosperous as they used to be, but life is an incessant struggle and the University

education is imparted to provide with the necessary equipment to fight it successfully. Nevertheless, the fact remains that the University is an unwilling contributory cause to the growing mass of educated unemployment which presents a problem for which a solution has to be found. It seems to me that the conditions which make for unemployment have to be examined and a policy evolved which would minimise, if it does not eliminate, educated unemployment, but at the same time we must be careful to see that we do nothing to retard the expansion of higher education without which the new seed of democratic institution planted in the country cannot thrive. The problem is not confined to one country or one Province, and in other countries it has engaged, and is, at the present moment, engaging the attention of their respective Governments. I understand that our new Governments are also actively engaged in finding a solution, and I hope they will find a satisfactory one which, while arresting the growth of unemployment, does not impair the growth of general education and development of culture which are the prerequisites of a community that calls itself civilized. So far as the national education of our people is concerned there is no doubt that it must be both intensive as well as extensive. If we wish to hold our own amongst the nations of the world, our Universities must be enabled to discover and diffuse truths and our alumni enabled to practise them as an unconscious habit of their life. To do so our professors and students should be encouraged to go abroad to assimilate knowledge and to learn the way of life of other people so as to extend their own ideals and assimilate them to the changing conditions of our country.

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Physical Training.

The physical training and supervision of our students is in the combined charge of a qualified Director and Medical Officer who examine all students biannually, maintain a record and advise and guide them in combating their physical ailments. The Director of Physical Education is responsible for regularising their physical exercises and for guiding them in their sporting activities. The combined report of the two has disclosed that the students of this University do not compare favourably with those of the sister University of Calcutta, much less the Western Universities, while the medical inspection shows that no less than 25 per cent of the students suffer from eye trouble or defective vision. This is a serious handicap to their studies and occupa-

tion in future life. The University Officers are doing whatever is humanly possible to improve the physical condition of the students, but they are naturally balked by the rooted habits of the past, which are in no small a degree responsible for the sense of frustration which confronts them when they are brought face to face with other problems of life. Similar complaint has been made of the members of the University Training Corps, an institution that should make its members alert and induce in them the habit of punctuality, attention and discipline and impart to them the supreme blessing of fellowship, goodwill and mutual tolerance so necessary in a country torn by divergent forces.

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National Reconstruction.

The University is only a small vehicle for the reconstruction of a nation, and those of you who are anxious to revive the lost glory of your motherland and rejuvenate its life have a heavy task before you. Other countries have adopted the course of national reconstruction by entrusting their future into the hands of one of their number. Such totalitarianism is unsuited to the genius of the British people who remain today almost the only people pledged to democracy. And it is for us to join with them in proving to the world that popular Government is after all the only form of Government that is truly conducive to the greatest happiness of the greatest number. But such Government postulates and demands an educated proletariat and one that is not afraid to remove the dry wood from the green without which there can be no real progress. If we are to see the sight of new India, it can never be by striving to revive the old, for history always repeats itself and no ideology of our fancied past will hail the dawn of a new nation with its organic progress, unless its young men have the courage to do what is right and do it singly even if the rest lag behind. That will need an effort in the beginning, but it is an effort well worth making for the sake of yourself and your fellowmen.

SOCIAL IMPLICATIONS FOR INSTRUCTION

BY

EDGAR G. JOHNSTON.

Social implications cannot be considered in a vacuum; they have significance only as they are related to a particular society at a particular period. At the risk of indulging in a platitude I wish to stress this point—we are not preparing young people to live in Nazi Germany or Communist Russia, or in the United States in which we grew up. We are not even preparing them to live in a United States which will remain exactly what it is today.

Two characteristics of contemporary society are especially significant for education. *One is developing technology and social change, constantly increasing in momentum.* There is no need to elaborate this point here. It has been endlessly discussed in recent years. The important fact is that however much we have talked about a changing society, we have done amazingly little about it.

The other consideration which must govern any attempt to adapt instruction to social needs is *the American concept of democracy.* As conceived at the birth of the Republic and cherished by millions of Americans, democracy has meant something more than a kind of political machinery. It has meant essentially a way of life which recognizes the inherent right of each citizen to develop his qualities to the full.

While the democratic ideal has been imperfectly achieved, and selfish interests have often influenced government to their own ends, throughout our history there has remained this ideal, against which practices could be measured and through appeal to which abuses could be corrected. With all its faults, the fact remains that the commitment to a democratic form of government has made a tremendous difference in the opportunities and responsibilities of the average citizen. Modern culture is essentially and irrevocably cooperative. The question is not whether we shall work collectively or not; it is, rather, "who shall determine the nature of collective activity." The rising tide of dictatorship proposes one answer to the question. We have chosen another path—that of free decision by popular will. We must recognize that our choice makes far greater demands on the intelligence and goodwill of the average man.

It is against this background of social change and democratic tradition that social implications for instruction must be considered. Four considerations seem outstanding:

Education in the high school must be more realistic. Only last December an ex-teacher was writing in the *Forum*: "Is there one person in 100,000 who cares whether *utor* takes the ablative or the ablative takes *utor* . . . whether Alexander conquered Darius or Darius conquered Alexander? Do you actually know one person who uses cube root or quadratic equations in his daily business? . . . The people into whom we have tried to ram this knowledge have no use for it and, therefore, no interest in it. This situation obtains as regards about 99 per cent of the curriculum."

Pupils have studied maps of ancient Greece who have never mapped their own community as a means of understanding civic problems. They have studied history and government, but have had no first-hand contact with the tax collector, the traffic court, or the school board meeting.

Realism means bringing the community into the school in the use of those environmental agencies that have educational significance.

Young people need more opportunities to participate in planning, in making decisions, and evaluating results of their efforts. This demands a shift in the teacher's rôle. He becomes a partner in a cooperative enterprise rather than a dictator. In many schools extracurricular activities partly fill this need, but something much more far-reaching is needed. In terms of growing maturity the pupil should be an active partner in all school activities. And his school experience must be made vital through application to real community problems. What more effective education can there be than active participation in service to the community?

The school should help pupils to develop the ability to sift fact from propaganda and to make decisions in the light of evidence. Those who control modern instruments of public opinion wield tremendous power and present a serious problem in a democracy. Censorship brings dangers as great as those it seeks to control. The only solution consistent with democratic theory is to provide the average citizen with the means of intelligent choice. The school has an obligation to prepare its pupils to protect themselves from misleading advertising and the propaganda of pressure groups.

Instruction must develop a sense of social responsibility and a loyalty to the democratic ideal. It is here that education

conceived as acquisition of facts breaks down. The European dictators have captured the imagination of youth with high devotion to a leader, a cause, an ideal. We distrust the dictator's aims and methods, but we cannot afford to be less intelligent. It is our task as teachers to capture the loyalty of youth for the ideal—to build in them a sense of drama, dignity, and adventure in the struggle for democracy.

[Edgar G. Johnston is Associate Professor of Secondary Education, University of Michigan, and Principal of the University High School.]

—Reprinted from *Education Digest*.

REORGANISATION OF UNIVERSITY EDUCATION FOR WOMEN IN INDIA

BY

MISS KAPILA KHANDWALA, M.A., T.D.

"The universities are excellent institutions for educating members of society, the society of chinovniks, but as soon as an attempt was made to make them into an establishment for educating Russian Society as a whole, they were found to be unsuitable."

"The chief concern of the students (I am now speaking of the best) is to take down notes and receive twice as much instruction as may help them to get ready for examination. The majority do not study their selected subjects, but others the list of which is determined by the circles which the students join. Lectures are usually regarded in the same way as a soldier regards his training, and examinations as he does parades—that is, as a tiresome necessity."

"There is no contact with the professors. There is none of the love and confidence that springs from this contact. There is, in the majority of cases, fear and mistrust. The students do not learn from professors new things such as cannot be learned in books. Does it not follow that the sole educative influence lies in the society of the young people themselves, who are all engaged in doing one thing? Undoubtedly: but the most part do not occupy themselves with science, but with preparing for examinations and deceiving professors."

Thus wrote Tolstoy, the great Russian writer about the mechanical character and the intellectual bankruptcy of the Russian Universities during the last century. This description would apply to our present-day University and College education, be it for boys or girls, men or women.

Our Universities are badly equipped and pay but little attention to teaching methods. The curriculum is far from being what it should be. The students work comparatively little, have long vacations, and whatever work they do is in the form of cramming on the eve of examinations. Naturally such irregular and superficial studies do not give the required results.

It may be that in some parts of India, in technical colleges, work is carried out more seriously and they have better equipment and teaching staff but on the whole it is very unsatisfactory.

Much more so for women. Women receive different treatment in the home and in society and yet they have to go through the same set of subjects taught in the same manner as the men students. They are not equipped for what society wants them to be and society will not give them the chance to make use of their equipment. What are they to do?

The structure of our higher educational establishments, particularly of women's universities and colleges, is not to train people with profound knowledge of special subjects. With the exception of the medical and teaching faculties, and perhaps a bit in law, the universities do not train women students for definite professions. Those who have graduated in arts or science—including the Karve course—do not know where to go. Many take up teaching posts in secondary schools despite the fact that they have no pedagogical training, while others become whatever they can to pull through a miserable existence.

It is not surprising that the more advanced of the intelligentia are thoroughly dissatisfied with the higher educational institutions.

How are we to deal with these institutions and how are we to reorganise the entire educational system including the women's section? We can have little help from the Government for reorganising higher education single-handed and on the other hand higher educational system has to be extended because we must have an enormous number of highly trained persons and specialists to meet the demand. The question of how to train them still remains unsolved.

In order to reorganise higher education it is necessary to set out the real purpose of all education in general and higher education in particular. This applies to both men and women's education in this country.

Education must develop the faculties, physical, moral and mental, of the individual and must fit her for taking her part in the economic and social life of her people. Any scheme of education that does not view life as a whole must be deemed defective for I do not believe in a different educational system and a special course in home economics just because the student is a girl or a woman. So you might train the student to manage the home and child (as is the case in a reactionary society) or to earn her livelihood and carve out a career for herself. But if she is not fully educated in the social sciences and imbued with a true sense of social duties she will fail miserably in contributing her quota to the advancement of society.

Viewed from this point of view it is obvious that the mass of lectures and instructions given in the college, however good

they might be for preparing students for passing examinations, can hardly be said to fulfill the true aims of education. What is worse, higher education for women in particular has become the monopoly of the rich. Prohibitive fees coupled with the high costs of living in towns, places college education outside the pale of the average Indian student. It is even worse for women than for men due to the social and political prejudices in the way of women's education and uplift. The atmosphere and the courses of colleges are hardly congenial to the social and mental habits of the Indian girl or woman.

The question that we have to consider is how to overhaul the present dull, dreary, uniform and mechanical system of higher education so as to subserve the true aims of education.

In the first place I want to make very clear from the start that I have little faith in the apparently easy but illusory method of giving suitable education to girls and women. We have been told times out of number that the present course is unsuitable for women students because they are women and not because the course prescribed is rigid and thoroughly uneducational. We have been asked time and again to consider schemes of separate colleges and even separate universities for women. But I believe whole-heartedly in the advantages of co-education at all stages. Separate schools and colleges cultivate a shy, feminine, and sectarian attitude in the girl students. What I am pleading for is that segregation of girls from boy students is undesirable in the interest of both and while reorganising women's education the first thing to be done is to revise and expand courses in the curriculum in all branches of higher education and increase the branches of study so as to make them interesting, inspiring and useful to the students concerned as well as the society.

There are several lines of re-organisation that I would like to suggest but before I specify them I should like to stress the place of higher education as I conceive it, in the total scheme of education. In my opinion preliminary and preparatory education must be given in all subjects and general knowledge: Mother tongue, Mathematics, English, Hindi, History, Geography, Civics, Elementary Science including Sex Science, Fine Arts, Household Work and Manual Work, etc., in the secondary schools. Colleges and universities should aim at imparting special education in the student's selected vocation. From this point of view the present courses of secondary education might be developed, and expanded so as to include some subjects that are dealt with today in the first and second year college courses and add some more subjects in the curriculum to give an all-round general education. But I

cannot emphasise too strongly that college education must largely though not wholly be devoted to specialise in studies both theoretical as well as practical, in a variety of subjects (vocations) suited to the varied tastes and aptitudes of the students.

In the first place college course, especially vocational course, is very narrow and restricted. Students have to select between a few general subjects, a few sciences or a few arts courses. There should be a greater choice and wider variety of subjects. The fields of study should be widened and enlarged, so as to suit every faculty and taste. The range of subjects should include industrial, medical, scientific, legal, technical, arts and also domestic sciences, private and public sanitation, dietetics and other allied subjects. Women must be allowed perfect freedom to choose any field of study they like. The whole point is to introduce greater richness and variety in the subjects taught in the colleges.

As I have already stated above college education should aim at specialisation to a large extent. This specialisation can be broad as well as narrow. For instance, one may be trained for teaching sciences and within the field some may be trained for the work of educational administrators, of lecturers for training or ordinary colleges, of heads of schools or nursery infant schools, of child psychologists, of school supervisors, of out-of-school activities supervisors, etc. Some may be trained as instructors in methods, for adult education or subject teachers as the case may be. This might be applied to all subjects that are taught at the college or university.

A change in college course is not enough. Teaching methods must be changed too. It's no use 50, 100, or even more students crowding in a room and listening to a very intelligent, scholarly and interesting lecture of a good or bad professor. They must have some general lectures a day on their selected subjects. But they must be followed by smaller group discussions and seminars for discussions of difficult points of possibilities for further studies, etc. This must be intimately allied with field work, demonstrations and library research. As a matter of fact field work and the work room must occupy an increasing place in the higher studies. Senior students may have more seminar work. The professor sets a number of subjects, suggesting the necessary literature. Each student may select his work for two or three months. She must be fully equipped to defend her thesis publicly before a commission or committee. Such education can be truly creative and help to unfold the hidden potentialities of all students.

Practical work should form an integral part of the course pursued at the college or university. Beginning with the 3rd year 30 per cent to 40 per cent of the time of the students must be spent in an enterprise or institution which is engaged in work similar to that for which the student is being trained, *e.g.*, if she is being trained for medicine then her practical work will be in a hospital, a lecturer's practical work can be done in a technicum or school attached to the university. Similarly if she is training herself in any branch of production, industrial or agricultural, her practical work will be done in a factory or a farm. The tutor or instructor should be present while students are carrying on their practical work.

Then physical culture must be included in the curriculum for higher education and must be compulsory for all. Men and women should receive instruction together if possible. Whenever weather conditions permit physical exercises should be carried on out of doors. Instructors should be trained in numbers to meet the demand.

With all my insistence on the major rate of specialised studies in university education, I must not lose sight of the necessity of giving a certain amount of general compulsory education to all men and women even in higher educational institutions. Everyone must be trained to be a conscious and responsible member of the stage and society. With this end in view a course in political economy including general knowledge of economics, political system of the world, duties of citizenship, special problems of the hour, etc., is a desideratum.

The examination system should also be changed side by side. I need hardly add that all courses and curricula of optional and compulsory subjects would have to be completely overhauled to carry out the scheme of re-organisation set out above. Of course, most of the teaching will be done in the mother tongue of the student and so we will require new text-books to clear with the technical and practical aspects of work. I know this is a very difficult task for we have few really good books on technical and scientific subjects. But a teaching university should make it its business to meet the problem. If a country like Russia can achieve the end why can't we try and do something in the weather?

Every college and university should have well-equipped free libraries, gymnasiums, clubs and other extra college activities. They must have enough leisure which again can be planned for the best use of the students.

Students must be provided with hostels so as to enable them to devote more time to studies.

In re-organising education for women one must not forget that college and university teachers must be raised to a higher level both in their training and equipment as well as financially, for this profession is poorly paid and appreciated here.

I know all this requires money. To give education to the children of the country is the solemn duty of every state or Government. Government should provide free education for all. I know even in countries like England, America, Germany, higher and university education is not free but these are not the only countries that we can look to for progressive standards. If we can spend such a lot on military items, salaries of higher officials, I am sure we can educate everyone free or for a much smaller amount than what we are doing at present.

In re-organising education we must keep in mind that the finest conduct will be a renaissance of art and sciences—this is the most sublime objective of human evolution. A great man has rightly told us that “the only goal worthy of humanity is the greatest possible enlargement of all human faculties.”

THE INFORMATIVE CONTENT OF EDUCATION

BY

SIR. H. G. WELLS.

(*The Presidential Address to the Educational Science Section of the British Association at Nottingham*).

Section L of the British Association is of necessity one of the least specialized of all sections. Its interests spread far beyond professional limitations. It is a section where anyone who is so to speak a citizen at large may hope to play a part that is not altogether an impertinent intrusion. And it is in the character of a citizen at large that I have accepted the very great honour that you have offered me in making me the President of this section. I have no other claim whatever upon your attention. Since the remote days when as a needy adventurer I taught as non-resident master in a private school, invigilated at London University examinations, raided the diploma examinations of the College of Preceptors for the money prizes offered, and in the most commercial spirit, crammed candidates for the science examinations of the university, I have spent very few hours indeed in educational institutions. Most of those were spent in the capacity of an enquiring and keenly interested parent at Oundle School. I doubt if there is any member of this section who has not had five times as much teaching experience as I have, and who is not competent to instruct me upon all questions of method and educational organization and machinery. So I will run no risks by embarking upon questions of that sort. But on the other hand, if I know very little of educational methods and machinery I have had a certain amount of special experience in what those methods produce and what that machine turns out. I have been keenly interested for a number of years, and particularly since the war, in public thought and public reactions, in what people know and think and what they are ready to believe. What they know and think and what they are ready to believe impresses me as remarkably poor stuff. A general ignorance—even in respectable quarters—of some of the most elementary realities of the political and social life of the world is, I believe, mainly accountable for much of the discomfort and menace of our times. The uninstructed public intelligence of our community is feeble and convulsive. It is still a herd intelligence. It tyrannizes here and yields to tyranny there. What is called elementary education throughout the world does not in fact educate, because it does not properly inform. I realized this very acutely during the latter stages of the war and it has been plain in my mind ever since. It led to my taking an active part in the production of various outlines and summaries of contemporary knowledge. Necessarily they had the defects and limitations of a private adventure but in making them I learnt a great deal about—what shall I say?—the contents of the minds our schools are turning out as taught.

And so now I am proposing to concentrate the attention of this section for this meeting on the question of what is *taught as fact*, that is to say,

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AGRICULTURE & THE
DOMESTICATION OF ANIMALS.
TRADE, TOWNS, SHIPS.
PREDATORY PEOPLES & WARFARE
[NO DATES YET - NO DYNASTIES.]

BASIS.

ABOUT ANIMALS :
-- PETS --
DAWN OF NATURAL HISTORY.

ABOUT THINGS & WHAT CAN
BE DONE TO THEM.
-- TOYS - BRICKS ETC -
DAWN OF PHYSICAL SCIENCE

ABOUT SHELTERS, ACTIVITIES &
WAYS OF LIVING.
-- CUBBY HOUSES --
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DAWN OF HUMAN HISTORY
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THE NATURAL CURIOSITY OF THE CHILD.

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AGRICULTURE & THE
DOMESTICATION OF ANIMALS.
TRADE, TOWNS, SHIPS.
PREDATORY PEOPLES & WARFARE
[NO DATES YET - NO DYNASTIES.]

BASIS.

ABOUT ANIMALS :
-- PETS --
DAWN OF NATURAL HISTORY.

ABOUT THINGS & WHAT CAN
BE DONE TO THEM.
-- TOYS - BRICKS ETC -
DAWN OF PHYSICAL SCIENCE

ABOUT SHELTERS, ACTIVITIES &
WAYS OF LIVING.
-- CUBBY HOUSES --
PLAYING SHOPS, ETC.
DAWN OF HUMAN HISTORY
& ECONOMICS

THE NATURAL CURIOSITY OF THE CHILD.

THE INFORMATIVE CONTENT OF EDUCATION
LANGUAGES AND SYMBOLS (MATHEMATICS), SKILLS, MUSIC, MORAL, MANUAL &
PHYSICAL TRAINING ARE NOT CONSIDERED HERE.

upon the *informative side of educational work*. For this year I suggest we give the question of drill, skills, art, music, the teaching of languages, mathematics and other symbols, physical training and development, a rest, and that we concentrate on the inquiry: *What are we telling young people directly about the world in which they are to live?* What is the world picture we are presenting to their minds? What is the framework on conceptions about reality and about obligation into which the rest of their mental existences will have to be fitted? I am proposing in fact a review of the *informative side of education*, wholly and solely—informative in relation to the needs of modern life.

And here the fact that I am an educational outsider—which in every other relation would be a disqualification—gives me certain very real advantages. I can talk with exceptional frankness. And I am inclined to think that in this matter of the informative side of education frankness has not always been conspicuous. For what I say I am responsible only to the hearer and my own self-respect. I occupy no position from which I can be dismissed as unsound in my ideas. I follow no career that can be affected by anything I say. I follow, indeed, no career. I have no party, no colleagues or associates who can be embarrassed by any unorthodox suggestions I make. Every schoolmaster, every teacher, nearly every professor must, by the nature of his calling, be wary, diplomatic, compromising—he has his governors to consider, his college to consider, his parents to consider, the local press to consider; he must not say too much nor say anything that might be misinterpreted and misunderstood. I can. And so I think I can best serve the purposes of the British Association and this section by taking every advantage of my irresponsibility, being as unorthodox and provocative as I can be, and so possibly saying a thing or two which you are not free to say but which some of you at any rate will be more or less willing to have said.

Now when I set myself to review the field of inquiry I have thus defined, I found it was necessary to take a number of very practical preliminary issues into account. As educators we are going to ask what is the subject-matter of general education? What do we want known? And how do we want it known? What is the essential framework of knowledge that should be established in the normal citizen of our modern community? What is the irreducible minimum of knowledge for a responsible human being to-day?

I say irreducible minimum—and I do so, because I know at least enough of school work to know the grim significance of the school timetable and of the leaving school age. Under contemporary conditions our only prospect of securing a mental accord throughout the community is by laying a common foundation of knowledge and ideas in the school years. No one believes to-day, as our grandparents—perhaps for most of you it would be better to say great-grandparents—believed, that education had an end somewhen about adolescence. Young people then left school or college under the imputation that no one could teach them any more. There has been a quiet but complete revolution in people's ideas in this respect and now it is recognized almost universally that people in a modern community must be learners to the end of their days. We shall be giving a considerable amount of attention to continuation adult and postgraduate studies in this section, this year. It would be wasting our opportunities

not to do so. Our modern idea seems to be a continuation of learning not only for university graduates and practitioners in the so-called intellectual professions, but for the miner, the plough-boy, the taxi-cab driver and the out-of-work, throughout life. Our ultimate aim is an entirely educated population.

Nevertheless it is true that what I may call the main beams and girders of the mental framework must be laid down, soundly or unsoundly, before the close of adolescence. We live under conditions where it seems we are still only able to afford for the majority of our young people, freedom from economic exploitation, teachers even of the cheapest sort and some educational equipment, up to the age of 14 or 15, and we have to fit our projects to that. And even if we were free to carry on with unlimited time and unrestrained teaching resources, *it would still be in those opening years that the framework of the mind would have to be made.* We have got to see therefore that whatever we propose as this irreducible minimum of knowledge must be imparted *between infancy and—at most, the fifteenth or sixteenth year.* Roughly, we have to get it into ten years at the outside.

And next let us turn to another relentlessly inelastic packing-case, and that is the school time-table. How many hours in the week have we got for this job in hand? The maximum school hours we have available are something roundabout thirty, but out of this we have to take time for what I may call the non-informative teaching, the native and foreign language teaching, teaching to read, teaching to write clearly, basic mathematical work, drawing, various forms of manual training, music, and so forth. A certain amount of information may be mixed in with these subjects but not very much. They are not what I mean by informative subjects. By the time we are through with these non-informative subjects, I doubt if at the most generous estimate we can apportion more than six hours a week to essentially informative work. Then let us, still erring on the side of generosity, assume that there are 40 weeks of schooling in the year. That gives us a maximum of 240 hours in the year. And if we take ten years of schooling as an average human being's preparation for life and if we disregard the ravages made upon our school time by measles, chicken-pox, whooping-cough, coronations and occasions of public rejoicing, we are given 2,400 hours as all that we can hope for as our time allowance for building up a coherent picture of the world, the essential foundation of knowledge and ideas, in the minds of our people. The complete framework of knowledge has to be established in two hundred dozen hours. It is plain that a considerable austerity is indicated for us. We have no time to waste, if our schools are not to go on delivering, year by year, fresh hordes of ignorant, unbalanced, uncritical minds, at once suspicious and credulous, weakly gregarious, easily baffled and easily misled, into the monstrous responsibilities and dangers of this present world. Mere cannon-fodder and stuff for massacres and stampedes.

Our question becomes therefore: 'What should people know—whatever else they don't know? Whatever else we may leave over—for leisure-time reading, for being picked up or studied afterwards—what is the irreducible minimum that we ought to teach as clearly, strongly and conclusively as we know how?'

And now I—and you will remember my rôle is that of the irresponsible outsider, the citizen at large—I am going to set before you one scheme of instruction for your consideration. For it I demand all those precious 2,400 hours. You will perceive the scheme is explicitly exclusive of several contradictory and discursive subjects that now find a place in most curricula, and you will also find doubts arising in your mind about the supply and competence of teachers, a difficulty about which I hope to say something before my time is up. But teachers are for the world and not the world for teachers. If the teachers we have to-day are not equal to the task required of them, then we have to recondition our teachers or replace them. We live in an exacting world and a certain minimum of performance is required of us all. If children are not to be given at least this minimum of information about the world into which they have come—through no fault of their own—then I do think it would be better for them and the world if they were not born at all. And to make what I have to say as clear as possible I have had a diagram designed which I will unfold to you as my explanation unfolds.

You have already noted I have exposed the opening stage of my diagram. You see I make a three-fold division of the child's impressions and the matters upon which its questions are most lively and natural. I say nothing about the child learning to count, scribble, handle things, talk and learn the alphabet and so forth because all these things are ruled out by my restriction of my address to information only. This is what it wants to know. In all these educational matters, there is an element of overlap. As it learns about things and their relationship and interaction its vocabulary increases and its ideas of expression develop. You will make an allowance for that.

And now I bring down my diagram to expose the first stage of positive and deliberate teaching. We begin telling true stories of the past and of other lands. We open out the child's mind to a realization that the sort of life it is living is not the only life that has been lived and that human life in the past has been different from what it is to-day and on the whole that it has been progressive. We shall have to teach a little about law and robbers, kings and conquests, but I see no need at this stage to afflict the growing mind with dates and dynastic particulars. I hope the time is not far distant when children even of eight or nine will be freed from the persuasion that history is a magic recital beginning 'William the Conqueror, 1066.' Concurrently, we ought to make the weather and the mud pie our introduction to what Huxley christened long ago as Elementary Physiography. We ought to build up simple and clear ideas from natural experience.

We start a study of the states of matter with the boiling, evaporation, freezing and so on of water and go on to elementary physics and chemistry. Local topography can form the basis of geography. We shall have to let our learner into the secret that the world is a globe—and for a time I think that has to be a bit of dogmatic teaching. It is not so easy as many people suppose to prove that the world is spherical and that proof may very well be left to make an exercise in logic later on in the education. Then comes biology. Education I rejoice to see is rapidly becoming more natural, more biological. Most young children are ready to learn a great deal more than most teachers can give them about

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animals. I think we might easily turn the bear, the wolf, the tiger and the ape from holy terrors and nightmare material into sympathetic creatures, if we brought some realization of how these creatures live, what their real excitements are, how they are sometimes timid, into teaching. I don't think that descriptive botany is very suitable for young children. Flowers and leaves and berries are bright and attractive, a factor in æsthetic education, but I doubt if, in itself, vegetation can hold the attention of the young. But directly we begin to deal with plants as hiding-places, homes and food for birds and beasts, the little boy or girl lights up and learns. And with this natural elementary zoology and botany we should begin elementary physiology. How plants and animals live, and what health means for them.

There I think you have stuff enough for all the three or four hundred hours we can afford for the foundation stage of knowledge. Outside this substantial teaching of school hours the child will be reading and indulging in imaginative play—and making that clear distinction children do learn to make between truth and fantasy—about fairyland, magic carpets and seven league boots, and all the rest of it. So far as my convictions go I think that the less young children have either in or out of school of what has hitherto figured as *history*, the better. I do not see either the charm or the educational benefit of making an important subject of the criminal history of royalty, the murder of the Princes in the Tower, the wives of Henry the Eighth, the families of Edward and James I, the mistresses of Charles II, Sweet Nell of Old Drury, and all the rest of it. I suggest that the sooner we get all that unpleasant stuff out of schools, and the sooner that we forget the border bickerings of England, France, Scotland, Ireland and Wales, Bannockburn, Flodden, Crecy and Agincourt, the nearer our world will be to a sane outlook upon life. In this survey of what a common citizen should know I am doing my best to elbow the scandals and revenges which once passed as English history into an obscure career or out of the picture altogether.

But I am not proposing to eliminate history from education—far from it. Let me bring down my diagram a stage further and you will see how large a proportion of our treasure of 2,000 hours I am proposing to give to history. This next section represents about 800 to 1,000 pre-adolescent hours. It is the school-boy—school-girl—stage. And here the history is planned to bring home to the new generation the reality that the world is now one community. I believe that the crazy combative patriotism that plainly threatens to destroy civilization to-day is very largely begotten by the schoolmaster and the schoolmistress in their history lessons. They take the growing mind at a naturally barbaric phase and they inflame and fix its barbarism. I think we underrate the formative effect of this perpetual reiteration of how *we* won, how *our* Empire grew, and how relatively splendid *we* have been in every department of life. We are blinded by habit and custom to the way it infects these growing minds with the chronic and nearly incurable disease of national egotism. Equally mischievous is the furtive anti-patriotism of the leftish teacher. I suggest that we take on our history from the simple descriptive anthropology of the elementary stage to the story of the early civilizations. We are dealing here with material that was not even available for the schoolmasters and mistresses who taught our fathers. It did not exist. But now we have the most lovely stuff to hand, far more exciting and

far more valuable than the quarrels of Henry II and á Becket or the peculiar unpleasantnesses of King James or King John. Archaeologists have been piecing together a record of the growth of the primary civilizations and the developing rôles of priest, king, farmer, warrior, the succession of stone and copper and iron, the appearance of horse and road and shipping in the expansions of those primordial communities. It is a far finer story to tell a boy or girl and there is no reason why it should not be told. Swinging down upon these early civilizations came first the Semitic-speaking peoples and then the Aryan-speakers. Persian, Macedonian, Roman followed one another, Christendom inherited from Rome and Islam from Persia, and the world began to assume the shapes we know to-day. This is great history and also in its broad lines it is a simple history—upon it we can base a lively modern intelligence, and now it can be put in a form just as comprehensible and exciting for the school phase as the story of our English kings and their terrestrial, dynastic and sexual entanglements. When at last we focus our attention on the British Isles and France we shall have the affairs of these regions in a proper proportion to the rest of human adventure. And our young people will be thinking less like gossiping court pages and more like horse-riders, seamen, artist-artisans, road-makers and city builders, which I take it is what in spirit we want them to be. Measured by the great current of historical events, English history up to quite recent years is mere hole-and-corner history.

And I have to suggest another exclusion. We are telling our young people about the real past, the majestic expansion of terrestrial events. In these events the little region of Palestine is no more than a part of the highway between Egypt and Mesopotamia. Is there any real reason nowadays for exaggerating its importance in the past? Nothing began there, nothing was worked out there. All the historical part of the Bible abound in wild exaggeration of the importance of this little strip of land. We were all brought up to believe in the magnificence of Solomon's temple and it is a startling thing for most of us to read the account of its decorations over again and turn its cubits into feet. It was smaller than most barns. We all know the peculiar delight of devout people when, amidst the endless remains of the great empires of the past, some dubious fragment is found to confirm the existence of the Hebrews. Is it not time that we recognized the extreme insignificance of the events recorded in Kings and Chronicles, and ceased to throw the historical imagination of our young people out of perspective by an over-emphasized magnification of the history of Judea?

Look at our time-table and what we have to teach. If we give history four-tenths of all the time we have for imparting knowledge that still gives us at best something a little short of 400 hours altogether. Even if we think it desirable to perplex another generation with the myths of the Creation, the Flood, the Chosen People and so forth we haven't got the time for it—any more than we have the time for the really quite unedifying records of all the Kings and Queens of England and their claims on this and that. No reason why much of that stuff should not be picked up in private reading—by those who like that sort of thing. But so far as the school time-table goes we are faced with a plain alternative. One thing or the other. Great history or hole-and-corner

history? The story of mankind or the narrow, self-righteous, blinkered stories of the British and the Jews?

There is a lot more we have to put into the heads of our young people over and above History. It is the main subject of instruction but even so, it is not even half of the informative work that ought to be got through in this school stage. We have to consider the collateral subject of geography and a general survey of the world. We may have a little mapmaking here, but I take it what is needed most are reasonably precise ideas of the various types of country and the distinctive floras and faunas of the main regions of the world. We do not want our budding citizens to chant lists of capes and rivers, but we do want them to have a real picture in their minds of the Amazon forests, the pampas, the various phases in the course of the Nile, the landscape of Labrador and so on, and also we want something like a realization of the sort of human life that is led in these regions. We have enormous resources now in cheap photography, in films and so forth, that even our fathers never dreamt of—to make all this vivid and real. New methods are needed to handle these new instruments but they need not be overwhelmingly costly. And also our new citizen should know enough of topography to realize why London and Rio and New York and Rome and Suez happen to be where they are and what sort of places they are.

Geography and History run into each other in this respect and, on the other hand, Geography reaches over to Biology. Here again our schools lag some fifty years behind contemporary knowledge. The past half-century has written a fascinating history of the succession of living things in time and made plain all sorts of processes in the prosperity, decline, extinction and replacement of species. We can sketch the wonderful and inspiring story of life now from its beginning. Moreover, we have a continually more definite account of the sequence of sub-man in the world and the gradual emergence of our kind. This is elementary, essential, interesting and stimulating stuff, and it is impossible to consider anyone a satisfactory citizen who is still ignorant of that great story.

And finally, we have the science of inanimate matter. In a world of machinery, optical instruments, electricity, radio and so forth we want to lay a sound foundation of pure physics and chemistry upon the most modern lines—for everyone. Some of this work will no doubt overlap the mathematical teaching. And finally, to meet awakening curiosity and take the morbidity out of it, we have to tell our young people and especially our young townpeople, about the working of their bodies, about reproduction and about the chief diseases, enfeeblements and accident that lie in wait for them in the world.

That I think completes my summary of all the information we can hope to give in the lower school stage. And as I make it I am acutely aware of your unspoken comment. *With such teachers as we have!* Well I think that it is a better rule of life, first to make sure of what you want and then set about getting it, rather than to consider what you can easily, safely and meanly get, and then set about reconciling yourself to it. I admit we cannot have a modern education without a modernized type of teacher. Everything I am saying now implies a demand for more and

better teachers—with better equipment. And these teachers will have to be kept fresh. It is stipulated in most leases that we should paint our houses outside every three years and inside every seven years, but nobody even thinks of doing up a school teacher. There are teachers at work in this country who haven't been painted inside for fifty years. They must be damp and rotten. Two-thirds of the teaching profession now is in urgent need of being either reconditioned or superannuated. In this advancing world the reconditioning of both the medical and the scholastic practitioner is becoming a very urgent problem indeed, but it is not one that I can deal with here. Presently this section will be devoting its attention to adult education and then I hope the whole question of professional and technical refreshment will be ventilated.

And there is another matter also closely allied to the questions of the rejuvenation of teachers, at which I can only glance now, and that is the bringing of school books up to date. In this informative section of school work there is hardly a subject in which knowledge is not being vigorously revised and added to. Our school work does not follow up contemporary digesting. Still less do our school libraries. They are ten, fifteen years out of date with much of their information. Our prison libraries by the by are even worse. I was told the other day of a virtuous prisoner who wanted to improve his mind about radio. The prison has a collection of technical works made for such an occasion and the latest book on radio was dated 1920. There is, I believe, an energetic New School Books Association at work in this field, doing what it can to act in concert with those all too potent authorities who frame our examination syllabuses. I am all for burning old school books. Some day perhaps we shall have school books so made that at the end of five years, let us say, they will burst into flames and inflict severe burns upon any hands in which they find themselves. But at present that is perhaps—Utopian. It is even more applicable to the next stage of knowledge to which we are now coming.

This stage represents our last thousand hours and roughly I will call it the upper form or upper standard stage. It is really the closing phase of the available school period. Some of the matter I have marked for the history of this grade might perhaps be given in grade B and *vice versa*. We have still a lot to do if we are to provide even a skeleton platform for the mind of our future citizen. He has still much history to learn before his knowledge can make an effective contact with his duties as a voter. You see I am still reserving four-tenths of the available time, that is to say, nearly 400 hours for history. But now we are presenting a more detailed study of such phenomena as the rise and fall of the Ottoman Empire, the rise of Russia, the history of the Baltic, the rise and fall of the Spanish power, the Dutch, the first and second British Empires, the belated unifications of Germany and Italy. Then as I have written we want our modern citizen to have some grasp of the increasing importance of economic changes in history and the search for competent economic direction and also of the leading theories of individualism, socialism, the corporate state, communism.

For the next five-and-twenty years now the ordinary man all over the earth will be continually confronted with these systems of ideas. They are complicated systems with many implications and applications.

Indeed they are aspects of life rather than systems of ideas. But we send out our young people absolutely unprepared for the heated and biased interpretations they will encounter. We hush it up until they are in the thick of it. The most the poor silly young things seem able to make of it is to be violently and self-righteously Anti-something or other. Anti-Red, Anti-Capitalist, Anti-Fascist. The more ignorant you are the easier it is to be an Anti. To hate something without having anything substantial to put against it. A special sub-section of history in this grade should be a course in the history of War, which is always written and talked about by the unwary as though it had always been the same, while as a matter of fact—except for its violence—it has changed profoundly with every change in social, political and economic life. Clearly parallel to this history our young people need now a more detailed and explicit acquaintance with world geography, with the different types of population in the world and the developed and undeveloped resources of the globe. The devastation of the world's forests, the replacement of pasture by sand deserts through haphazard cultivation, the waste and exhaustion of natural resources, coal, petrol, water, that is now going on, the massacre of important animals, whales, penguins, seals, food fish, should be matters of universal knowledge and concern.

Then our new citizens have to understand something of the broad elements in our modern social structure. They should be given an account of the present phase of communication and trade, of production and invention, and above all they need whatever plain knowledge is available about the conventions of property and money. Upon these conventions human property stands, and the efficiency of their working is entirely dependent upon the general state of mind throughout the world. We know now that what used to be called the inexorable laws of political economy and the laws of monetary science, are really no more than rash generalization about human behaviour, supported by a maximum of pompous and a minimum of scientific observation. Most of our young people come on to adult life, to employment, business and the rest of it, blankly ignorant even of the way in which money has changed slavery and serfdom into wages employment and how its fluctuations in value make the industrial windmills spin or flag. They are not even warned of the significance of such words as inflation and deflation, and the wage-earners are the helpless prey at every turn towards prosperity of the savings-snatching financier. Any plausible monetary charlatan can secure their ignorant votes. They know no better. They cannot help themselves. Yet the subject of property and money—together they make one subject because money is only the fluid form of property—is scarcely touched upon in any stage in the education of any class in our community. They know nothing about it; they are as innocent as young lambs and born like them for shearing.

And now here you will see I have a very special panel. This I have called Personal Sociology. Our growing citizen has reached an age of self-consciousness and self-determination. He is on the verge of adolescence. Moral training does not fall within the scope of the informative content of teaching. Already the primary habits of truthfulness, frankness, general honesty, communal feeling, helpfulness and generosity will or will not have been fostered and established in the youngster's mind by the example of those about him. A mean atmosphere

makes mean people, a too competitive atmosphere makes greedy, self-glorifying people, a cruel atmosphere makes fierce people, but this issue of moral tone does not concern us now here. But it does concern us that by adolescence the time has arrived for general ideas about one's personal relationship to the universe to be faced. The primary propositions of the chief religious and philosophical interpretations of the world should be put as plainly and impartially as possible before our young people. They will be asking those perennial questions of adolescence—whence and why and whither. They will have to face, almost at once, the heated and exciting propagandas of theological and sceptical partisans—pro's and anti's. As far as possible we ought to provide a ring of clear knowledge for these inevitable fights. And also, as the more practical aspect of the question, What am I to do with my life? I think we ought to link with our general study of social structure a study of social types which will direct attention to the choice of a *metier*. In what spirit will you face the world and what sort of job do you feel like? This subject of Personal Sociology as it is projected here is the school equivalent of a confirmation class. It says to everyone: 'There are the conditions under which you face your world.' The response to these questions, the determination of the will, is however not within our present scope. That is a matter for the religious teacher, for intimate friends and for the inner impulses of the individual. But our children must have the facts.

Finally, you will see that I have apportioned some time, roughly two-tenths of our 1,000 hours, in this grade to the acquisition of specialized knowledge. Individuality is becoming conscious of itself and specialization is beginning.

Thus I budget, so to speak, for our 2,400 hours of informative teaching. We have brought our young people to the upper form, the upper standard. Most of them are now going into employment or special training and so taking on a rôle in the collective life. But there remain some very essential things which cannot be brought into school teaching, not through any want of time, but because of the immaturity of the growing mind. If we are to build a real modern civilization we must go on with definite informative instruction into and even beyond adolescence. Children and young people are likely to be less numerous proportionally in the years ahead of us in all the more civilized populations and we cannot afford to consume them in premature employment after the fashion of the preceding centuries. The average of the population is rising and this involves an upward extension of education. And so you will see I suggest what I call an undergraduate or continuation school, Grade D, the upper adolescent stage, which I presume will extend at last to every class in the population, in which at least half the knowledge acquired will be specialized in relation to interest, aptitude and the social needs of the individual. But the other half will have to be unspecialized, it will have to be general political education. Here particularly comes in that education for citizenship to which this educational section is to give attention later. It seems to me altogether preposterous that nowadays our educational organization should turn out new citizens who are blankly ignorant of the history of the world during the last twenty-five years, who know nothing of the causes and phases of the Great War and are left to the tender mercies of freakish newspaper proprietors and party organizers

for their ideas about the world outlook, upon which their collective wills and actions must play a decisive part.

Social organization is equally a matter for definite information. 'We are all socialist nowadays.' Everybody has been repeating that after the late Lord Rosebery for years and years. Each for all and all for each. We are all agreed upon the desirability of the spirit of Christianity and of the spirit of Democracy, and that the general interest of the community should not be sacrificed to Private Profit. Yes—beautiful, but what is not realized is that Socialism in itself is little more than a generalization about the undesirability of irresponsible ownership and that the major problem before the world is to devise some form of administrative organization that will work better than the scramble of irresponsible owners. That form of administrative organization has not yet been devised. You cannot expropriate the private adventurer until you have devised a *competent receiver* for the expropriated industry or service. This complex problem of the *competent receiver* is the underlying problem of most of our constructive politics. It is imperative that every voter should have some conception of the experiments in economic control that are in progress in Great Britain, the United States of America, Italy, Germany, Russia and elsewhere. Such experiments are going to affect the whole of his or her life profoundly. So, too, are the experiments in monetary and financial organization. Many of the issues involved go further than general principles. They are quantitative issues, questions of balance and more or less. A certain elementary training in statistical method is becoming as necessary for anyone living in this world of to-day as reading and writing. I am asking for this much contemporary history as the crowning phase, the graduation phase of our knowledge-giving. After that much foundation, the informative side of education may well be left to look after itself.

Speaking as a teacher of sorts myself, to a gathering in which teachers probably predominate, I need scarcely dilate upon the fascination of diagram drawing. You will understand how reluctant I was to finish off at Grade D and how natural it was to extend my diagram to two more grades and make it a diagram of the whole knowledge organization of a modern community. Here then is Grade E, the adult learning that goes on now right through life, keeping oneself up to date, keeping in touch with the living movements about us. I have given a special line to those reconditioning courses that *must* somehow be made a normal part in the lives of working professional men. It is astonishing how *stale* most middle-aged medical men, teachers and solicitors are to-day. And beyond Grade E I have put a further ultimate grade for the fully adult human being. He or she is learning now, no longer only from books and newspapers and teachers, though there has still to be a lot of that, but as a worker with initiative, making experiments, learning from new experience an industrialist, an artist, an original writer, a responsible lawyer, an administrator, a statesman, an explorer, a scientific investigator. Grade F accumulates, rectifies, changes human experience. And here I bring in an obsession of mine with which I have dealt before the Royal Institution and elsewhere. You see indicated by this flight of arrows, the rich results of the work of Grade F flowing into a central world encyclopædic organization, where it will be continually summarized, clarified, and

whence it will be distributed through the general information channels of the world.

So I complete my general scheme of the knowledge organization of a modern community and submit it to you for your consideration.

I put it before you in good faith as a statement of my convictions. I do not know how it will impress you and I will not anticipate your criticisms. It may seem impossibly bold and 'Utopian.' But we are living in a world in which a battleship costs £8,000,000, in which we can raise an extra 400 million for armaments with only a slight Stock Exchange qualm, and which has seen the Zeppelin, the radio, the bombing aeroplane come absolutely out of nothing since 1900. And our schools are drooling along very much as they were drooling along 37 years ago.

There is only one thing I would like to say in conclusion. Please do me the justice to remember that this is a project for Knowledge Organization only and solely. It is not an entire scheme of education I am putting before you. It is only a part and a limited part of education—the factual side of education—I have discussed. There are 168 hours in a week and I am dealing with the use of rather less than 40 weeks—for 10 years. It is no good saying as though it was an objection either to my paper or to me, that I neglect or repudiate spiritual, emotional and aesthetic values. They are not disregarded, but they have no place at all in this particular part of the educational scheme. I have said nothing about music, dancing, drawing, painting exercise, and so on and so forth. Not because I would exclude them from education but because they do not fall into the limits of my subject. You no more want these lovely and elementary things mixed up with a conspectus of knowledge than you want playfulness in an ordnance map or perplexing whimsicality on a clock face. You have the remaining 162 hours a week for all that. But the spiritual, emotional, aesthetic lives our children are likely to lead, will hardly be worth living, unless they are sustained by such a clear, full and sufficient backbone of knowledge as I have ventured to put before you here.

AGRICULTURE THROUGH FILMS: ITS IMPORTANCE IN RURAL RECONSTRUCTION

BY

SHEIKH IFTEKHAR RASOOL.

It seems superfluous to repeat that agriculture is the chief economic factor in the wealth of nations and the principal element in their social stability.

If agriculture does not receive the attention it deserves, and proper measures are not taken to allow the peasants to live in satisfactory conditions, if the rural population begins to abandon the countryside, the national industry and trade will suffer, and the social and economic situation will be disturbed. Every effort should, therefore, be made to keep agricultural conditions normal.

It is not only economic conditions which operate in agricultural life, but social and rural factors have their influence also. It happens sometimes that a farmer who has reached a certain standard of wealth wishes to live in a city on account of the greater degree of comfort there. The peasant in general finds the life of the city attractive. This is a reason for us to make country life appealing. We must consider how this is to be done.

In United States.

The cinema is one of the finest mediums of general and technical education. Its superiority over other methods is due to the facility with which it can be used, to the thoroughness and accuracy of its instruction and specially to its capacity for showing minute and microscopic objects enlarged thousands of times, thus rendering possible the study of hitherto ignored but very important objects.

The experience of the United States Department of Agriculture in the use of official motion pictures of educational work in agriculture covers a very long period. Beginning with sporadic experimental production in 1911, the work expanded rapidly during the period of the World War, and by 1923 motion pictures had become a well-established feature of the department's educational work. The Office of Motion Pictures, created in

1923, is now a branch of the Extension Service serving primarily over 4,000 agricultural agents throughout the country. This office circulates copies of about 200 pictures. No rental is charged for this service, the borrower paying only the transportation charges.

Most Effective Medium.

From this long and extensive experience it is clear that the motion picture is the most effective medium available for laying the groundwork of an educational campaign among adults, that the motion picture has great potential value in the field of elementary education, that the sound is destined greatly to enhance the value of educational motion pictures in general and, lastly that the sound pictures cannot wholly displace the silent pictures in educational work.

Though not destined for use in elementary work in schools, these films have been used to a considerable extent in school work throughout the United States. The success reported by teachers in the case of films, designed primarily for adults, tends to confirm the belief that there is a great field for films prepared solely for use in schools.

Agricultural Cinema in France.

Similar steps were taken in 1923 by the French Government to further the cause of agricultural photography. A special fund was placed at the disposal of the Ministry of Agriculture for organising and developing the agricultural cinema. A special commission was instituted in the Ministry to which was given the name of Permanent Commission for the Agricultural Cinema. This was composed of 50 members chosen from among parliamentary deputies, prominent in agriculture, science, cinematography and the university. The task before the commission was a careful examination of all the questions connected with the granting of subsidies for the production, purchase or loan of films and for the installation and working of cinematographic apparatus in rural communes and country schools with the object of encouraging in every way the spread of knowledge likely to be useful in agriculture.

These problems have led to the creation of various bodies in many other countries which have since been united in an international federation presided over by Prof. Klein.

A very important congress was organised, not long ago, in the Grand Duchy of Luxembourg in which specialists engaged

in the question of the economic and social improvement of the conditions of the peasants took part. The agricultural section of this exhibition included a 'Model Farm' organised by the Belgium Commission for the amelioration of rural life.

These methods can similarly be adopted in India to render life in the country more attractive by utilising all the means at our command to keep the rural population on the land, and especially the generation of peasants.

Conditions in India.

In an attempt to alleviate the lot of our country-folk attention is inevitably riveted on their deep and grinding material poverty. Abolition of this terrible curse of life must precede any attempt to raise their moral, social and cultural standard of life. This can only be done through films showing modern farm planning, construction of rural habitation, drinking water installations, irrigation plants and land reclamation project and practice.

It is undoubtedly a fact that during the last century in many countries the adoption of machinery and labour-saving implements, the introduction of artificial manures and improved seeds and the discovery of remedies for pests and insects have increased the amount of produce per acre and it is also a fact that the Indian cultivator has stuck to century-old methods and has not taken advantage of the improvements effected by science in agriculture of which he is generally ignorant. This can successfully be taught by means of the cinema with beneficial results.

It must be remembered that land is a national asset and the prosperity of a nation depends on the use that a nation makes of this free gift of nature. The nation which disregards this first principle of providing enough for those who produce food and clothing for the nation can never hope to prosper.

Village Industries.

Village industries occupy a pivotal position in all schemes of village improvement. This is a most necessary, most difficult and complicated piece of work. It calls for vast resources and an efficiency of organisation which unofficial effort alone is, for obvious reasons, unable to command. A beginning has however been made and a long vista of possibilities is opening up.

Any hope of substantial industrial progress must rest upon a foundation of general enlightenment and wide diffusion of

scientific knowledge amongst the people. Propaganda by means of the cinema is especially interesting because it gives the material shown the best possible chance to be understood and sound films, if used for these purposes, are much appreciated.

The organisation of agricultural cinema in some foreign countries has so far given the most encouraging results. There is no doubt this work is an eminently useful and a profitable one for the peasants, and it is to be hoped that the system, if allowed in India, will lead to fruitful results in the interest of the agriculturists.

HORACE MANN ON EDUCATION.

The Common School is the greatest discovery ever made by man.

In a republic ignorance is a crime.

The object of the Common School system is to give to every child a free, straight, solid pathway by which he can walk directly up from the ignorance of an infant to the knowledge of the primary duties of man.

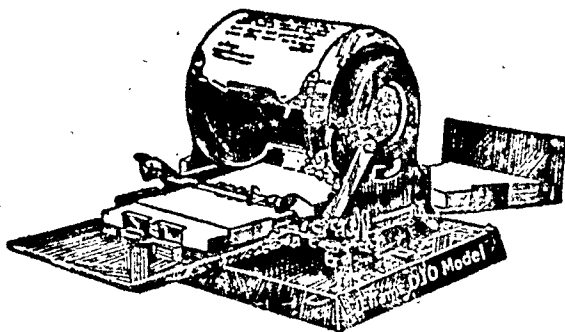
The highest service we can perform for others is to help them to help themselves.

Education is our only political safety. Outside of this ark, all is deluge.

A patriot is known by the interest he takes in the education of the young.

If ever there was a cause, if ever there can be a cause, worthy to be upheld by all toil or sacrifice that the human heart can endure, it is the cause of education.

Be ashamed to die until you have won some victory for humanity.



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The Indian Journal of Education

(Edited and Published by the All-India Federation of Educational Associations, Post-Box 52, Cawnpore)

OBJECTS

- (1) To act as an information Centre for all matters relating to Indian Education.
- (2) To encourage scientific investigation in educational sphere and to stimulate statistical enquiries or those relating to experimental projects.
- (3) To consolidate a public of those who, finding it impossible to be indifferent about the educational drift of India, believe that a concern for the health of educational criticism is immediately relevant to the political and economic urgencies of the time.
- (4) To provide a mouthpiece for Indian educational thinkers and researchers.
- (5) To strive for World Peace through Education.

ITS CONTRIBUTORS

The Managing Editor of the Journal is assisted by an Editorial Board appointed by the Council of the All-India Federation of Educational Associations which consists of the most noteworthy figures on its platform. Its contributors include among others the pick of Indian scholars and savants who can write authoritatively on their subjects.

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SOME OBSERVATIONS ON INSTRUCTION IN PRIMARY SCHOOLS

BY
AN OBSERVER.

I have had to do with Primary and Preparatory Schools in U. P. for nine long years. My knowledge of these schools tells me that the Infant Class is generally the worst taught class in a Primary School. This class was up to a certain year in the past generally in charge of an untrained raw recruit, who knew nothing of modern methods of instruction. The Education Department, with a view to improve matters, later on issued a circular that this class should be taught by a trained teacher, if not by the Head Teacher of the school, who was generally a trained teacher. But the circular was obeyed more in letter than in spirit and the improvement was hardly perceptible. It may be said that there was a sort of apathy towards the teaching of this class, for even trained teachers not possessing enough zeal for their work, found it tedious to deal with small children, who did not know how to dress themselves, to keep clean or to sit properly in the classroom. India is a poor country and the scholars in the Infant Class presented a very untidy appearance. It therefore seems an uphill-task to improve the lot of the children in the Infant Class.

Another serious difficulty that confronted the teachers was continual admissions to this class all the year round, which was overcome a good deal by the Departmental order that admissions to this class were to be made only twice a year, generally in July and January. Though things have improved since then, there is still much ground to be covered before the Infant Class can be real stepping-stone to mass literacy in India. In the lines that follow I shall try to give some suggestions based on experience which may prove helpful to teachers of Infant and other classes in Primary Schools and to those Inspecting officers who have to deal with these schools:

(a) When the child first enters a school, he is a stranger to it. The surroundings are not familiar to him and he does not know how to sit, stand or speak in the classroom. The first thing the teacher has to do is to make the child feel at home. There should be no trace of fear of the teacher in the child's mind. Such a thing is easily possible if the teacher is a woman, for

children live with their mothers up to a certain age and are therefore easily guided by women who are by nature gentle and love-inspiring.

(b) When the child feels at home, the teacher is to instruct him in ordinary things, such as how to sit, how to stand, how to keep his things, how to speak to others and so on. This is very necessary for it will facilitate the teacher's work in teaching the boy how to read and write later on. It is a mistake to begin with alphabets straightaway before instructing the child in the things noted above.

(c) The most important thing that the teacher has to teach the child is conversation. It has been noticed that even children reading in Class IV do not know how to talk properly in their mother tongue, I mean, their own vernacular. It is not difficult to account for this state of affairs. The teacher himself invariably talks to his pupils in the dialect of the village or town where the school is situated with the result that scholars do not learn to speak or to write in idiomatic vernacular. Great stress should be laid on the teacher himself speaking in correct language, though he may make use of the village or town dialect in bringing home to the pupils the meanings of certain words with which they may not be familiar. But in my opinion it is better to have recourse to the Direct Method in teaching the language.

(d) A teacher's work will become imperatively easy, if he arranges his class in a manner that prevents slackness, copying from other slates or books or inattention to what is going on in a classroom with the result that children do not catch the teacher's eye, cannot lay their hands quickly on the book, slate or pen wanted, and talk to one another, when they should be listening to the teacher.

(e) Previous preparation of lessons to be taught in the class is absolutely necessary. It does not entail much labour, but it requires a good deal of careful thinking. The teacher has to chalk out beforehand the plan on which he will proceed with the lesson in the classroom, the illustrations he will put before the scholar or the questions he will put to them. If even half an hour daily is devoted to this part of preparation before coming to the classroom, I am sure a great deal of improvement will follow.

(f) The school premises should be made as attractive as possible and extra-curricular activities, such as gardening, scouting, games and drill should be introduced to make instruction as interesting and as less irksome as possible.

(g) The teacher should try to be in touch with the parents, whose co-operation he should invite, whenever and wherever necessary.

These are some of the fundamentals, which are calculated to improve the tone and teaching in Primary Schools.

REVIEWS.

The School of The Future, by K. G. SAIYIDAIN, B.A., M.Ed.,
The Indian Press, Ltd., Allahabad.

“The School of the Future” is a type of book, which is sure to commend itself to every teacher and every citizen, who is directly or indirectly concerned with the education of children. The author has taken pains to give a lucid expression to his scholastic experiences and ideas, which are of immense help to men and women in charge of moulding and shaping the character of the future citizens of the country. The book is comprehensive and deals with every aspect of education from the primary to the university stage. It lays special emphasis on making provision for the full development of those individualistic tendencies, which attain their full growth, only in the congenial atmosphere of national freedom.

Mr. Saiyidain rightly cries down the school routine, which suppresses or kills the spirit of initiative in a gifted child, who losing his individuality becomes a problem to his nation, instead of being a valuable asset to it. He offers a number of suggestions whose adoption in our schools will not only be conducive to the release of the creative impulse of the child, but enrich his life and add to his joys. He thinks that the wide gulf between our national aspirations and the environment of our educational institutions cannot be bridged over without overhauling the present system of education.

The author has not joined the cry of giving undue importance to technical education at the cost of secondary, higher or university education. He is in favour of making provisions for vocational bias in the courses of general education and has made a variety of suggestions which will facilitate the work of reorganisation of education in the country. He has not over-looked the significance of university education which is a victim of adverse criticism today, especially on account of the unemployment of the university graduates. He admits the shortcomings of our present university education which divorces the life of its students from that of the community, and offers suggestions to remedy the ills. But while refuting the unjust criticism he espouses the cause of the university education which plays an important rôle in the growth of every nation and which is so essential for the elevation of its morale.

A wide out-look permeates the whole book and it will certainly meet the demands of our national education which is the pressing need of the day. The author has evinced his liberalism and independence by incorporating only those ideas of the prominent Western educationists, which are in consonance with the growth of our national life. A perusal of the book provides food for thought to its every reader interested in the problem of education, and equips the teacher with the knowledge which increases his efficiency.

We fully agree with the author's remark that "every individual school has a distinct entity of its own. It is like a work of art which cannot be predicted beforehand." To make this work of art more durable, more full of rich life-blood this book has its own contributions. Differences of opinion there are bound to be, but as the author confesses "I believe it is necessary in intellectual matters to be uncompromisingly sincere with oneself, even if it provokes differences, for out of such differences of views, discussed honestly and dispassionately, may emerge a fuller truth, a higher synthesis." We are confident that the study of the book will lead us near it.

B. G. M.

Golden Resources—A Guide to Health, Wealth and Happiness, by L. V. Narsimha Rao. Published by the author, Shantivasati, Guntur. Price Re. 1 As. 4.

The volume has for its hypothesis that "Every being in the universe forms part and parcel of Brahman to the brim with the difference in miniature and in manifestation." Proceeding upon this hypothesis the author has ably tried to wed modern Scientific Methods to the ancient principles of upkeep of a healthy body and the growth of a strong mind. The strong plea to open oneself to the different benevolent influences of Mother Nature, to assimilate the bounties of Nature into one's body and mind, should be really commendable today when life is more artificial and the living humanity is a hothouse plant shutting out Nature's Amenities. In a pseudo-scientific and pseudo-religious vein the author has discussed planetary influences on all Life in Nature, the life-giving and life-sustaining principles.

There is surely no royal road to health, wealth and happiness, and the Book of Golden Resources has no ready-made recipes; but it initiates the reader into a correct understanding of the

principles of Life. We are at one in the faith of the author that if the application of sciences has been utilised in the right sense, one will achieve both natural and spiritual salvation in proportion to his sincere and tactful venture. We recommend this book to the notice of the laymen and the experts who are interested in the well-being of the human individuals and human society.

S. P. K.

Our Present-Day Education, by HANUMANPRASAD PODDAR.
Gita Press, Gorakhpur. Price Three Annas.

Of eminent critics of the present-day education of Indian children there is no dearth. To the heavy holocaust of the present-day education the author has pushed in another bonfire. He has given us an unrelieved picture of the evils inherent in the system—attacking its method, and its shocking effects on the minds of the children and youth. The author is fully convinced that the revolt of the young against the old, the looseness of civic and educational life, aversion to religious faith and religious routine and neglect of hereditary avocation by our school children and college youth are due entirely to the bane of the present-day education. A few observations may be interesting to the readers. “To the modern educated mind—what is religion? except a figment of the human brain. Designing and selfish persons have created these conceptions to frighten and cheat the unsophisticated.” “Co-education has opened another road to ruin. Colleges and hostels built in imitation of the West are breeding an atmosphere of luxury and enjoyment;” with “the light of modern education (our children) regard their parents as antiquated fools” and at the top of it all, “modern education has vitiated the mentality of woman, she is clamouring for equality of right with man and is developing a sort of hatred for him.” Throughout from beginning to end we are led to the plague-spots of modern education. It is almost a shriek—educational surely—against the ravages of modern teaching. It is an embittered soul-crying for vengeance. The sincerity of the author is undoubted but the shriek alone will not root out the evil if it is there at all.

It is common custom with the critics of National life to make the educational syllabus the scapegoat of their religious, or political fury. Even if a perfect clean-up of education be effected as suggested can the good old days of religious millennium

dawn? It is only a matter of opinion. It is conveniently forgotten that man today as before is a social being; he is not only national today—he is international; and the curses and threats put upon the uncomplaining head of education should rightly be placed on the social conditions of the day.

Doubtless, education, as human civilisation has advanced, had to undergo a change, older values had to suffer a greater premium, and newer ideals had to be experimented with. The experimental stage is not yet over and hence this crowd of criticism which has almost choked the clear perspective.

S. P. K.

THE THIRTEENTH ALL-INDIA EDUCATION CONFERENCE

Calcutta, 1937

(Under the auspices of the All-India Federation of Educational Associations)

December 26—31, 1937

I. Officers of the Conference

President of the Conference	C. R. Reddi, M.A. (Cantab), Bar-at-Law, M.L.A., Vice- Chancellor, Andhra University.
President of the Federation	P. Seshadri, M.A., Principal, Government College, Ajmer.
Chairman, Reception Committee	Sanat Kumar Roy Choudhary, M.A., B.L., Mayor of Calcutta.
Secretary of the Federation and the Conference	D. P. Khattry, B.A., L.T., Head- master, Pt. Prithi Nath High School, Cawnpore.
General Secretary of the Reception Committee and the Joint Secretary of the Conference	K. P. Chattopadhyaya, M.A., Head of the Department of Anthro- pology, Calcutta University.

II. The Programme

(Note.—The time given in this programme is Calcutta time which is to be calculated by adding 24 minutes to Standard Time.)

Sunday, the 26th December, 1937

3 p.m. Opening of the All-India Educational Exhibition by
(Place: City College, Amherst Street.)

Monday, the 27th December, 1937

9 a.m. Annual Meeting of the Council of All-India Federation of Educational Associations for 1938. (Open to the members of the Council only. The Council is also the Subjects Committee of the Conference.) Chairman: Principal P. Seshadri, M.A.

(Place: Vidyasagar College, Cornwallis Street.)

3 p.m. Opening Session of the Conference: Inaugural Address by Mr. Shyama Prasad Mukerji, Vice-Chancellor, Calcutta University; Election of the President; Welcome and Presidential Addresses; Messages and Announcements.

(Place: Senate House.)

7 p.m. Public Lectures.

Tuesday, the 28th December, 1937

8 a.m. to 10 a.m.—Sectional Conferences. (First shift.) (Place: Vidyasagar College.)

(1) *University Education Section*

Secretary:—Prof. M. S. Sundaram, M.A., Agra College, Agra.

Local Secretary:—Prof. Rajkumar Chakravarti, M.A., B.L.

(2) *Secondary Education Section*

Secretary:—Prof. A. V. Mathew, B.A., B.T., S. M. T. Teachers' College, Kolhapur.

Local Secretary:—Mr. J. Lahiri, M.A., B.T., T.D., M.R.S.T.

(3) *Childhood and Home Education Section*

Secretary:—Mr. Gijubhai Badheka, Dakshinamurti Balmandir, Bhavnagar (Kathiawar).

Local Secretary:—Dr. Satyananda Roy, M.A., B.Ed., Ph.D.

(4) *Adult Education Section*

Secretary:—Mr. K. S. Vakil, M.Ed., I.E.S. (Retd.), Principal, S.M.T. Teachers' College, Kolhapur.

Local Secretary:—Mr. Umaprasad Mukherji, M.A., B.L.

10 a.m. to 12 Noon. Interval for Breakfast.

12 Noon to 2 p.m. Sectional Conferences (2nd Shift) (Vidyasagar College).

(5) *Examination Section*

Secretary:—Prof. A. S. Sinha, M.A., L.T., D. A. V. College, Dehra Dun.

Local Secretary:—Prof. H. P. Maiti, M.A.

(6) *Health and Physical Education Section*

Secretary-in-charge:—Prof. Mannoo Lal Misra, M.A., Agra College, Agra.

Local Secretary:—Mr. K. N. Roy, Superintendent, Government Physical Training Centre, Calcutta.

(7) *Vocational Education Section*

Secretary:—Mr. V. L. Mane, M.A., Headmaster, Technical School, Gwalior.

Local Secretary:—Mr. Lalit Mohan Bhattacharya, M.A.

(8) *Moral and Religious Education Section*

Secretary:—Khwaja Sarwar Hasan, M.A., Bar-at-Law, University of Delhi.

Local Secretary:—Mr. P. K. De Sarkar, M.A.

2 to 3 p.m. Interval.

3 p.m. to 5-30 p.m. General Session of the Conference:—(President of the Conference in the Chair.) Reports of Sections. Papers and Discussions. Resolutions. (Senate House.)

Secretary:—Mr. D. P. Khattry, Cawnpore.

Joint Secretary:—Prof. K. P. Chattopadhyaya, Calcutta.

6 p.m. Civic Reception of the Delegates by the Mayor and the Councillors of the Calcutta Corporation.

Wednesday, the 29th December, 1937

8 a.m. to 10 a.m. Sectional Conferences. (Vidyasagar College.)

(1) *Training of Teachers, Educational Research and Experiment Section*

Secretary:—Dr. G. S. Krishnaiya, M.A., Ph.D., S.M.T. Teachers' College, Kolhapur.

Local Secretary:—Dr. S. P. Chatterjee, M.A., T.D., Ph.D. (Lond.), Docteurdel' Universite (Paris).

(2) *Internationalism and Peace Section*

Secretary:—Dr. Brij Mohan Sharma, M.A., Ph.D., University of Lucknow.

Local Secretary:—Dr. S. C. Basu, M.A., Bengal Correspondence, League of Nations.

(3) *Primary and Rural Education Section*

Secretary:—Sardar A. T. Mukerjee, M.Sc., M.R.A.S., Headmaster, Hindu High School, Nabadwip (Bengal).

Local Secretary:—Rev. S. K. Chatterjee, M.A.

(4) *Sections whose proceedings could not be finished*

10 a.m. to 12 Noon. Interval for Breakfast.

12 Noon to 2 p.m.—New Education Fellowship. (First Session) (Senate House).

2 p.m. to 3 p.m. Interval.

3 p.m. to 5-30 p.m. General Session Combined with a special session on Women's Education: Reports of Sections, Papers and Discussions, Resolutions. (Place: Senate House.)

Local Secretary :—Mr. P. Basak, B.A., B.T., T.D. (Lond.)

7 p.m. Public Lectures.

Thursday, the 30th December, 1937

8 a.m. to 9-30 a.m. Second Session of the Council Meeting if necessary.
(Senate House.)

9-30 a.m. to 12 Noon. Closing Session of the Conference. (President of the Conference in the Chair.) Papers and Discussions. Prize-giving of the Tennis Tournament. Resolutions of Courtesy.
(Senate House.)

2-30 p.m. New Education Fellowship. 2nd Session if necessary.
(Place-Vidyasagar College.)

Friday, the 31st December, 1937

Excursions to places of general interest.

III. Invitation To Readers

On behalf of the Reception Committee of the 13th All-India Educational Conference, we have great pleasure in extending a very cordial invitation to you to attend the session of the Conference to be held in Calcutta this year during Christmas. We are extending this invitation to all educationists, heads of Education Departments, heads of Educational institutions, University lecturers, professors, inspectors, administrative officers, and teachers in Government as well as non-Government services, and to all ladies and gentlemen who are interested in the cause of education. We request you also to give this invitation a wide publicity among your friends and others who may be interested in it.

WHAT IT IS

This is the XIII All-India Educational Conference, held under the auspices of the All-India Federation of Educational Associations. The different Teachers' Associations and Educational Organisations in India are affiliated to the Federation. The Federation is also affiliated to the World Federation of Educational Associations. Since 1925 the Federation has been organising an All-India Educational Conference annually under the presidency of distinguished educationists like Sir P. S. Sivaswamy Iyer, Dr. Sir C. V. Raman, the late Sir Syed Ross Masood and Mr. Syama Prasad Mukerji. The present session is being held in Calcutta at the invitation of the All-Bengal Teachers' Association.

ITS IMPORTANCE

We are sure you will agree with us about the necessity and importance of bringing all, who are engaged in the sacred work of nation-building in different parts of the country, together on a common platform to discuss the various problems relating to education in India in all its different aspects. We hope that you will realise the importance of a Conference like this, and so we look forward to your valued co-operation in making it a success by attending its deliberations.

ITS SCOPE AND HOW IT WORKS

The Conference will discuss the various educational topics in different sections and also in its general sessions. It usually has the following sections :—

- (1) Childhood and Home Education ;
- (2) Primary and Rural Education ;
- (3) Secondary Education ;
- (4) University Education ;
- (5) Adult Education ;
- (6) Vocational Education ;
- (7) Examinations ;
- (8) Educational Experiment, Research and Training of Teachers ;
- (9) Health and Physical Education ;
- (10) Internationalism and Peace ;
- (11) Moral and Religious Education.

The Reception Committee also invites you to contribute a paper on any educational topic for discussion in any of the sections.

THE ALL-INDIA EDUCATIONAL EXHIBITION

As in previous years it is proposed to hold an All-India Educational Exhibition in this connection. The Exhibition Committee solicit the co-operation of all interested in education in making the Exhibition a success. It will be the endeavour of the Committee so to organise the Exhibition as to make it serve not only the teacher but also the general public by demonstrating through the exhibits what modern educational outlook tends to be, and what modern teaching as an art and a craft is, or is to be in the hands of the twentieth-century teacher.

The Exhibition Committee invites you and your organisation to extend your active help and co-operation in the furtherance of the aims and scope of the Exhibition. The exhibits should consist of maps, charts, diagrams, tables and manuscripts, models, scientific instruments and appliances, laboratory apparatus, specimens of handwork, paintings and pictorial sketches, drawings, calligraphic specimens, needlework and others of educational value.

The Indian Railways usually allow a free return of all articles coming to these exhibitions. The Reception Committee has, in addition, decided to bear a part of the actual railway freight for the carriage of the articles to the exhibition on production of the railway receipt by the exhibitors. Some substantial prizes will also be awarded for deserving exhibits. The exhibits should reach here before the 10th December, 1937.

All communications in this respect are to be addressed to the Secretary, Exhibition Committee, 209, Cornwallis Street, Calcutta.

THE SEVENTH ALL-INDIA TEACHERS' TENNIS TOURNAMENT

Arrangements will also be made during the session of the Conference for holding the Seventh All-India Teachers' Tennis Tournament. It is open to all *bona-fide* schoolmasters, principals and professors of colleges, educational administrators and inspecting officers.

If you are interested in the Tournament, you are requested to communicate with the Secretary, All-India Teachers' Tennis Tournament Committee, 209, Cornwallis Street, Calcutta.

HANDBOOK OF CALCUTTA

The Reception Committee is publishing a small handbook of Calcutta for the use of delegates attending the Conference.

ENTERTAINMENTS

It will be the endeavour of the Reception Committee to arrange for entertainments which may take the form of Bratachari Demonstrations, Scout Displays, Physical Feats, Vocal and Instrumental Music and Drama.

EXCURSIONS

There are several places in and about Calcutta which are worth visiting. The Reception Committee will try to arrange for excursions of delegates to these places. If a sufficient number of delegates agree to join, an excursion may be organised to Santiniketan.

SITE AND ACCOMMODATION

The Senate Hall of the Calcutta University has been selected as the venue of the general sessions of the Conference.

The boarding and lodging arrangements for ladies and gentlemen will be separate, and, as far as possible, the Reception Committee will try to make suitable arrangements for delegates who are Europeans. Lodging will be free.

BOARDING ARRANGEMENTS

There will be arrangements for two separate messes so that the vegetarian and non-vegetarian delegates may get food suited to their tastes. The charges will be as under :—

Vegetarian :—

for five days of the Conference	Rs. 5 0 0
per day " "	Re. 1 0 0
per meal " "	0 8 0

Non-vegetarian :—

per meal	0 12 0
per day	1 8 0
Tiffin	0 2 0

THE CLIMATE

Winter in Calcutta is fairly cold towards the end of December. Delegates are requested to bring with them their winter kit and mosquito nets. The delegates from the South are especially requested to provide themselves with additional rugs and woollen clothing for the night.

VOLUNTEERS

Besides the members of the Reception Committee the Volunteer Corps Committee will also post some volunteers and officers at the Howrah and Sealdah Stations to receive the delegates and visitors and to conduct them to their places of residence. Conference volunteers will wear a distinctive badge. The Taxi, Coolie and other incidental charges will be paid by the delegates themselves.

Any further particulars, regarding the arrangements, may be obtained from the General Secretary, Reception Committee, the XIII All-India Educational Conference, 209, Cornwallis Street, Calcutta. Every delegate will be supplied with a badge and a copy of the detailed programme of the Conference in Calcutta. Intending delegates are requested to send in their names and fees to the General Secretary, Reception Committee, as early as possible, and to state (i) if they would require accommodation and meals (vegetarian or non-vegetarian), and (ii) if they would like to join the excursion to Santiniketan.

CHARGES

Delegation fee	Rs. 2/- only.
Membership, Reception Committee	5/- „
Visitor's fee	2/- „

Sanat Kumar Roy Chowdhary, Chairman.

K. P. Chattopadhyaya, General Secretary.

IV. Educational Exhibition

Under the auspices of the XIII All-India Education Conference an educational exhibition will be held in Calcutta commencing from the 26th of December. An outline of the Scheme drawn up for the purpose is appended below:

AIMS

1. To emphasize the objectives of education and advances in modern educational methods.
2. To improve teaching technique and craftsmanship.
3. To encourage handicrafts and expression work.

OUTLINE OF THE EXHIBITION SCHEME

Classified in regard to the services of its exhibits the exhibition falls into five sections, viz.,—

- (1) Committee Stalls.

- (2) Special Schools and Training Institutions.
- (3) Education for the defective.
- (4) Associations of Teachers.
- (5) Commercial stalls.

The committee stalls will be organised on the basis of the objectives of education (*vide* Commission on the re-organisation of Secondary Education, U.S.A.) as follows:

1. Health.
2. Command of fundamental processes.
3. Worthy Home-Membership.
4. Vocation.
5. Civic Education.
6. Worthy use of Leisure.
7. Ethical Character.

The 6th Sub-section of the committee stalls includes handicrafts by students and prizes will be offered for the best work in each of the following types of handicrafts:—

(a) Boys' section.

1. Woodwork, 2. Metal work, 3. Sheet metal work, 4. Wicker-work, 5. Modelling, 6. Weaving, 7. Leather work, 8. Water-colour painting, 9. Black-and-white drawing, 10. Etching, wood and lino cut, 11. Modelling with paper pulp, 12. Models of scientific apparatus, locomotives, aeroplanes etc., 13. Paper and cardboard work, 14. Cutting and Tailoring, 15. Bookbinding.

(b) Girls' section.

1. Needlework and dress making, 2. Embroidery, 3. Chicon and zari work, 4. Art-leather work, 5. Water-colour painting, 6. Black-and-white drawing, 7. Decorative work, 8. Sweets and Condiments, 9. Weaving, 10. Spinning, 11. Etching, wood and lino cut, 12. Modelling, 13. Stencilling and die printing, 14. Paper and cardboard work, 15. Wicker-work.

All interested in craftsmanship in education are requested to contribute towards the success of the exhibition. Books, appliances, illustrative materials, statistical charts and graphs intended for the committee stalls should be such as may help in the enrichment of the instructional organisation of our schools and colleges. In regard to handicrafts by students only the best work of each type should be sent.

Exhibits should reach the undersigned on or before the 15th of December, 1937.

S. C. Dutta,

Jt. Secretary, Exhibition Committee,
209, Cornwallis Street, Calcutta.

V. The New Education Fellowship Delegation to India

Plans for the visit of the delegation are nearing completion. The delegation will consist of :

1. Rektor Lawrin Zilliacus, B.Sc., Chairman of the N. E. F. International Committee and Principal, Tolo Svenska Samskola, Helsingfors, Finland;
2. Mr. Ernest Salter Davies, C.B.E., M.A. (Oxon.), Director of Education for Kent, England;
3. Prof. Pierre Bovet, D. Litt. (Geneva), Hon. Litt. D. (Witwatersrand), Professor of Education, University of Geneva and Vice-President, N. E. F., Switzerland.

Madame Bovet will accompany Prof. Bovet. She is Joint Editor of a monthly paper on Home Education. It is hoped that Mrs. Salter Davies will be in the party. The delegation will come from Australia after attending the Regional N. E. F. Conference there during August-September. It will travel from there to Trivandrum—starting work there on the 25th October.

General Plan for N. E. F. Delegation's Visit to India is as follows :—

Monday,	25th	October, 1937	...	Trivandrum	3 days
Thursday,	28th	"	"	Madras	5 "
Tuesday,	2nd	November	"	Mysore	5 "
Monday,	8th	"	"	Hyderabad	3 "
Thursday,	11th	"	"	Nagpur	2 "
Monday,	15th	"	"	Bhopal	2 "
Thursday,	18th	"	"	Gwalior	3 "
Monday,	22nd	"	"	Agra	2 "
Thursday,	25th	"	"	Aligarh	3 "
Monday,	29th	"	"	Delhi	5 "
Saturday,	4th	December	"	Lahore	7 "
Saturday,	11th	"	"	Ludhiana	2 "
Tuesday,	14th	"	"	Lucknow	4 "
Saturday,	18th	"	"	Benares	2 "
Tuesday,	21st	"	"	Patna	3 "
Friday,	24th	"	"	Calcutta	7 "

(All-India Educational Conference)

Saturday,	1st	January, 1938	...	Bombay	7 "
Saturday,	8th	"	"	Baroda	2 "
Tuesday,	11th	"	"	Bombay	Sail for Europe.

The general arrangements regarding the tour are in the hands of Mr. E. W. Franklin, Spence Training College, Jubbulpore.

SAFETY IN THE HOME, SCHOOL, AND COMMUNITY

The Accident Picture. By definition an accident is a "befalling," an undesigned, sudden, and unexpected event. In other words, it is a surprise. If an individual expected to be knocked down whenever he crossed the street against the light, it stands to reason he would always stay on the curb until the light changed. Although an accident is a surprise to the individual, it is not a surprise to a collection of individuals. As a community and as a nation we have learned by experience to expect accidents to happen. We can, with terrible precision, prophesy that six out of every 100 persons born will eventually die of accidental injury. We can mark one car out of every 20 as a "tragedy car" destined to cause injury or death. We have cataloged and recataloged every known accident hazard in the home, in the street, and in industry. Battalions of engineers, hosts of lawmakers, and a whole legion of law-enforcement agencies are constantly at work on the problem of cutting down the annual toll of accidents.

Despite these efforts to make our environment accident-proof, accidents demand a tribute of many lives every day; many persons permanently disabled every hour; many persons injured every minute; and a huge economic loss every second.

Home Accidents. The fact that numbers of people are killed in home accidents suggests that the phrase "safe at home" is a little ironical. The reason this total is so large is, of course, that injuries to babies and infirm old people who cannot protect themselves and to whom injuries are more serious occur usually in the home. As a rule, however, these accidents are traceable to carelessness on the part of older children and active adult members of the family. Good housekeeping, in the widest sense, includes safety precautions.

Motor Vehicle Accidents. None of us needs to be told that in our time the greatest menace to safety outside the home is the motor vehicle. During 18 months in the World War, 50,510 soldiers in the Expeditionary Forces of the United States were killed in action or died from wounds. In a similar period in time of peace, more than 52,000 persons were killed in motor accidents. The total economic loss to the community from such accidents is estimated at \$1, 600,000,000 a year.

Street accidents, like other accidents, are directly influenced by both engineering and personal factors. The majority of such accidents are directly attributed to the lack of skill, the carelessness, or the actual physical disability of certain drivers and pedestrians. Physical defects (poor vision or slow reactions), bad driving habits, and, above all, bad emotional attitudes (recklessness, impulsiveness, speed mania, stubbornness, bad manners, and inconsiderateness) and the drinking of alcoholic beverages are among the chief factors responsible.

Safety Education. From the days of the cave man until now men have been using their brains to protect their bodies. Man's efforts to make the human body invulnerable to attack from without have brought to pass many of the miracles of modern medicine. Actually, modern medical science has succeeded in developing the means of making the body safe from certain communicable diseases, notably smallpox and diphtheria,

and is continually working to extend to mankind the priceless boon of immunity against other microbe invaders. But to natural forces in the environment—fire that burns, cold that freezes, electricity that shocks, the force of gravity, the impact of things that crush and break and puncture—no way has yet been found to make the human body invulnerable.

It is practically impossible to make an environment completely accident-proof, although the cooperation of all the forces in a community may be able to reduce accident hazards enormously. Any community safety program which has for its objective the elimination of danger sports in the home and street deserves the support of all the citizens. The fewer obstacles there are in the road the less apt we are to stumble. But the most difficult and important task in a safety program is the training of the individual in the knowledge, attitudes, and skills which will help him to avoid accidents under existing conditions. In this task the school has already achieved marked success.

Safety Work of School Groups. The schools can do a lot as safety work. Playground supervision, careful checking of the school premises for the detection and removal of accident hazards, and, above all, safety education which more and more places the responsibility for accident prevention on the individual, are some of the ways in which the schools may reduce accidents among children. The spread of Boy Scouts Movements can be one of the important factors in this reduction. The function of the patrols should be to instruct, direct, and control students in crossing the streets at or near schools. The obvious value of the patrol is to prevent accidents from happening on the spot. But the Scout Patrol is also an educational force, as one of its important functions is to educate school children in safe street practices, at all times and in all places.

In the age group 15 to 19 traffic accident fatalities mount rapidly into the skyscraper class. Statistics show that twice as many fatal automobile accidents take place in this age group as among children 10 to 14 years of age. As this is the age in which young people usually begin to drive, it is not illogical to assume that lack of driving skill and experience may account in large part for this increase.

One of the most recent and important developments in the teaching of the principles of highway safety can be the rapid spread of safe driving courses in special institutions. The programs for these safe driving courses may vary, but in general they should include the information which all drivers should possess about an automobile, and also training in good driving attitudes and good driving skills. In the most effective courses the actual practice of driving a car in traffic under expert supervision should be considered to be an integral part of the plan. This movement, to provide a specific course of instruction in the management of the motor car, is an important factor in modern life and appears to be a development of great promise.

Other Opportunities for Safety Education in Schools. Opportunities for integrating safety education with other phases of education are numerous. How this is to be done is an administrative problem and will vary according to the organization of each school. One of the most useful approaches is the study of actual situations based on local statistics

or on actual experience with situations in which home, school, and street accidents may occur. In analyzing the causes of accidents, it is of course necessary to have the interpretation of such specialists as physicians and psychologists. Motor vehicle department records of accidents for your locality may be analyzed as to cause, location, and age of victims. School and home safety surveys may be made. Accidents to pupils and their friends may be analyzed thoroughly as to cause (showing that accidents do not "just happen"). Local regulations for granting drivers' licenses and systems of traffic control may be analyzed and criticized. Visits may be made to the traffic court. Models may be prepared and dramatizations composed to illustrate safe practices. Above all, cooperation in the local safety program will relate the school program to the activities of the whole community.

(By the courtesy of the Health Section Secretariat, World Federation of Education Associations, New York.)

INDIAN STUDENTS IN GREAT BRITAIN

(Extracts from the Report of the work of the Education Department of the Indian High Commissioner's Office in London for 1935-36 prepared by Dr. Thomas Quayle, C.I.E., D.Litt., M.A.)

A comparison of the figures for 1935-36 with the corresponding figures of the two previous years, as shown in the following table, reveals certain interesting tendencies in regard to the outlook of the Indian students coming to Great Britain :

	1933-34	1934-35	1935-36
Arts	318	335	340
Economics and Commerce ...	162	149	110
Pure Science	124	117	144
Engineering and Technology ...	285	264	209
Medicine	395	450	586
Agriculture and Veterinary ...	57	50	53
Various	56	116	116

The number of students studying Economics and Commerce has declined from 162 in 1933-34 to 110 in 1935-36, and of those studying Engineering and Technology from 285 to 209. On the other hand, there has been a slight but continuous increase in the Faculty of Arts and a very marked increase in the case of Medicine. The number of medical students has risen from 395 in 1933-34 to 586 in 1935-36.

With regard to Engineering and Technology, it would seem that students have found that high academic qualifications are not in themselves as useful in after life without a sound practical training. The slight increase in the Faculties of Arts is all the more interesting in that it contrasts with the revulsion from academic studies noticeable after the war and the consequent rush for engineering and technological courses. This tendency has now obviously spent itself and the claims of a liberal education are asserting themselves again.

In so far as Medicine is concerned, the increase is to a slight extent attributable to the fact that a more complete census was made during the year than was possible hitherto. The larger number of students in this Faculty must, however, in large part be attributed to the fact that in 1930 the General Medical Council withdrew the recognition of all Indian medical degrees, and consequently many Indians desirous of obtaining post-graduate qualifications in this country were as a rule obliged to come here earlier and for a longer period in order to take a qualification registrable in the United Kingdom. Further, there has been an increase in the number of post-graduate medical diplomas obtainable, and in an age of increasing specialisation this undoubtedly accounts for a certain percentage of the increase.

It is gratifying to note that the number of students taking post-graduate courses has increased from 468 in 1934-35 to 624 in 1935-36.

Two hundred and six students were formally under the supervision of the Department during 1935-36, including 116 State and Special Scholars, 27 students in receipt of grants or allowances from Private Memorial or Trust Funds, 40 Indian Civil Service and Forestry Service Probationers, eight students awarded grants-in-aid, and fifteen private students entrusted to the care of the High Commissioner for the purpose of their education in this country.

There were 1,350 Indian students (including 74 women) pursuing full-time courses at Universities and Colleges in England.

At Cambridge, the Adam Smith prize was awarded to Mr. V. K. R. V. Rau (Bombay), Gonville and Caius College, who had previously been awarded the Garton Studentship of £400 per year for studying Social Science. Mr. S. Shiveshwarkar (Bombay), of Sydney Sussex College and Indian Civil Service probationer, gained the Rayleigh prize. Mr. Jehangir Khan, of Trinity, who first gained his Cricket "Blue" in 1933, played for the University in the two succeeding years and the Indian students continued to do well in such games as lawn tennis and hockey.

At the University of Liverpool, a considerable proportion of the Indian members were during 1935-36 awarded the Degree of Doctor in Philosophy. The Milne Medal, which is awarded to the candidate for the Diploma in Tropical Medicine who is considered to show the highest merit in this examination, was gained by Dr. R. G. Ghosal (Bengal).

At the University of London, well over 900 were members of the constituent Schools, Colleges and recognised Institutions of the University.

At Manchester University, at least three of the Indian students who took the ordinary degree of B.Sc. Tech. at the end of the academic year 1935-36 distinguished themselves by the very high quality of their work.

There was a total number of sixty-one Indian students in residence, at the Delegacy for Oriental Students, including three women and nine Indian Civil Service Probationers. Special mention may be made of the

success of Mr. V. A. D. Hamdani (Bombay), of Jesus College, who obtained a First Class in the Honours School of Oriental Languages and also the James Mew (Arabic) scholarship.

At Edinburgh, the work of Messrs S. C. Dhar (Bengal) and N. G. Shabde (Central Provinces) in Higher Mathematics was commendable.

At Glasgow eleven joined the University among whom there were two Government scholars and three private students.

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The total number of Indians admitted to various courses of study at various medical institutions is about 600; and British Medical Schools are doing their best to meet the requirements of medical students from India.

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No less than ten of the leading Assurance and Insurance Societies and Companies have agreed to receive, on the recommendation of the High Commissioner, Indian students into their office for a period of six months or so in order to obtain experience of actuarial practice. Three students have already undergone training under this scheme, the value of which will each year make available for life insurance in India a few qualified men who by practical work associated with their studies, will have absorbed something of the standards of British Life Assurance methods and administration.

* * * * *

The number of cases in which training facilities offered in various branches of Engineering and Technology were availed of was 124, distributed as follows:—

Civil and Municipal Engineering	...	...	2
Electrical Engineering	...	...	32
Mechanical Engineering	...	...	24
Marine Engineering	...	...	1
Railway Engineering	...	...	17
Railway Traffic	...	...	6
Automobile Engineering	...	...	4
Aviation	...	...	6
Printing	...	...	2
Various Technical and Professional Subjects	...	...	30
Total	...	...	124

The total number of Government Scholars and other students under the supervision of the Department during the period was 151, distributed as follows:—

I. Students holding scholarships awarded by the Government of India or by Provincial Governments:—

Men :

(a) At Oxford or Cambridge	7
(b) At other Universities	19
(c) Technical and professional training	4
(d) In schools, works and factories	42
	<hr/>
	72

Women :

(a) At Oxford and Cambridge	3
II. Students in receipt of Grants-in-aid	8

III. Scholars entrusted to the Supervision of the High Commissioner by various Indian States, Trust Funds, etc. :—

(a) Sussex Trust Scholars (including four women)	11
(b) Silver Wedding Fund Scholars	3
(c) Lytton Moslem Scholars	2
(d) Prince of Wales' Reception Fund Scholars	2
(e) King Edward Memorial Fund Scholars	5
(f) Indian Cotton Research Committee Scholars	2
(g) Nagpur University Scholar	1
(h) De Souza Trust Fund	5
(i) Private Trust Funds	27
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(j) State Scholars from—	58
Baroda	8
Kashmir	1
Mysore	1
	<hr/>
	10
	<hr/>
	151
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Fifteen students were entrusted by parents or guardians to the supervision of the High Commissioner during the period under review. Twelve of these students were looked after directly by the Department and three were placed in the care of the Local Adviser at Glasgow. For the Indian students at Oxford, Cambridge and Edinburgh, the respective University authorities undertook this responsibility, and during the year there were twelve students under the Secretary of the Delegacy for Oriental Students at Oxford, nine students under the Secretary of the

Inter-Collegiate Indian Students Committee at Cambridge, and five students under the charge of the University Adviser to Indian Students at Edinburgh.

During the year under review the Department had again to deal with numerous cases of destitution and serious illness. Ten students had to be repatriated to India with funds secured from their parents or guardians, and in addition eight students (including two women) were assisted with cheap passages to India, including one who had got himself into serious financial difficulties from which the Department helped to extricate him. Two very sad cases of suicide occurred during the year and the inquests were attended by an officer of the Department, which subsequently arranged for the settlement of their-affairs.

* * * * *

In Medicine and Surgery the following high professional qualifications were obtained: Eight students were awarded the Fellowship of the Royal College of Surgeons, England, and seven (including one woman) the Membership of the Royal College of Physicians, London, two Indian doctors gained the high distinction of the Fellowship of the Royal College of Physicians, Edinburgh, nine the Membership of the same institution, and six the Fellowship of the Royal College of Surgeons, Edinburgh. In science four students were awarded the important degree of D.Sc., twenty-four obtained the Ph.D., and twelve the degree of M.Sc. (including one in Engineering). In the Faculties of Arts and Economics, etc., no less than fourteen students were awarded the degree of Ph.D.

* * * * *

A noteworthy feature of the year under review has been the number of students who have come for courses in Education, both theoretical and practical. Having regard to the immensity and complexity of the problems of education which sooner or later will have to be faced and resolved in the new India, it may confidently be expected that the students who have obtained this qualification in Education and also practical experience in schools here of all grades and types, will in due course play their part in contributing to the educational development of their own country. With the progressive expansion of primary and higher education in India the question of an adequate supply of trained and qualified teachers, and especially teachers competent to teach in and through English, is likely to become of great importance within the next few years, and those who come here for this purpose will undoubtedly learn much from Western methods of school organisation and practice, with which to supplement their own traditional methods of teaching and training. The usual course is a year in the Education Department of a University here, supplemented by teaching practice in, and visits to, schools of all types.

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The number of women students remains fairly constant, the majority being engaged in Medical studies and in courses leading to the Teachers' Diploma. It is noticeable that the women students for the most part appear to adapt themselves fairly easily on their arrival in England to the changed conditions of life, and show themselves very eager to make the most of their time in this country, both from a social as well as from an academic point of view.

(By the courtesy of the Director of Public Information,
Government of India.)

A WORD TO EDUCATORS ABOUT ALLIED YOUTH

BY

W. ROY BREG,

Executive Secretary.

Every so often, history books have to be rewritten. It is not enough after a great war, an international crisis, or a worldwide depression to add a chapter. Historians see facts and trends in a new light, and so they say, "We must write the record from a new approach."

This is what is happening in the alcohol field in 1937. Scientific authority given to previously uncertain conclusions; the growing freedom for youth, with its attendant increasing personal responsibility; the presence of 26 million automobiles on the nation's highways; the rapidly increasing tempo of life—these are among the factors that have outdated previous texts, methods, and materials in alcohol education.

It is in the search for "a new approach" to the alcohol question that alert school leaders in every section of the country are discovering, and in a growing number of high schools adopting Allied Youth's program of alcohol education to supplement classroom teaching.

Let Youth Do It!

The first recommendation of Allied Youth, this organization that specializes in effective alcohol education, is "Let youth do it!" Drinking in its many modern guises is a problem that most high school students will meet somewhere before their graduation or shortly thereafter. What they say and do about it may influence the whole course of their lives; they have a right to know this, and to be prepared. Further, the attitudes that they take, and the habit-patterns they adopt will generally be the reflection of the lessons they have learned and the social customs they have observed.

The fact that drinking is to such a large extent associated with social and recreational activities is one of the explanations for the promotion of Allied Youth's program through local youth-led Posts, frequently formed at school, with the endorsement and cooperation of principal and teachers.

The Local Post

The Allied Youth Post is chartered by the national organization. It has officers and a sponsor, regular meetings, a definite program, standards of conduct and attitude, very much in the way that the athletic team is organized—a unit of leaders in a particularly specialized field, drawn from and organized within the school. There are also community and neighborhood Posts.

The initiated members are the "letter-men." They do not drink, and can be relied upon to set high standards of conduct within their own social and school sets. There are also associate members, who are interested in the Post program and activities, but do not quite "rate" full membership. They are in a sense "members in training."

The Post Program

The Post Program supplements classroom teaching about alcohol, as it is integrated with chemistry, biology, history, economics, sociology and other courses, with (a) further study and discussion into which such local authorities as doctors, police officers, welfare workers, etc., are asked to bring their evidence and experience; (b) investigation of local conditions and of the alcohol situation as it may be found in courts, reformatories, industrial plants, hospitals, on the highways, and elsewhere; and (c) a well-rounded social and recreational schedule that provides ample opportunities for alcohol-free good times and the development of wholesome and happy fellowship.

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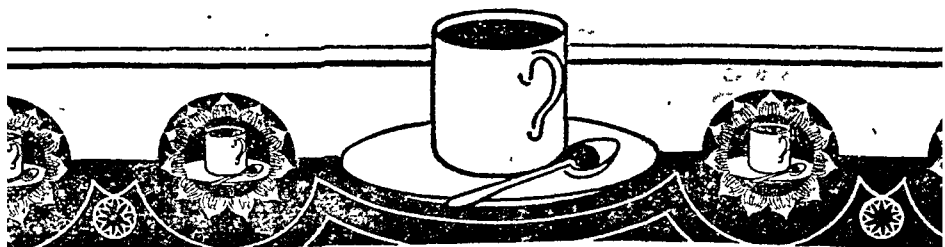
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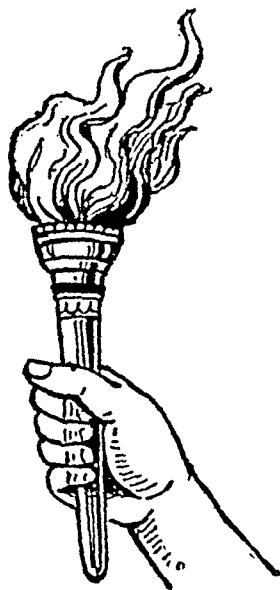
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Editors' Note

The Editors will be glad to receive contributions on all matters educational and particularly invite for publication (a) authoritative articles on educational topics; (b) short articles dealing with educational research; (c) accounts of educational experiments; (d) articles containing statistics and their application to the solution of educational problems; (e) short notices of original works; (f) news of interest to educational workers.

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Indian Journal of Education

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MAY & JUNE 1936

No. 5, 6

SECONDARY EDUCATION IN INDIA

BY

A. YUSUF ALI, C.B.E.,

*(Presidential Address to the Secondary Education Section
of the All-India Muslim Conference, Rampur,
21st February, 1936.)*

The productive power of a nation and the average standard of its material civilisation depend on its secondary system of education. And yet that is the weakest link in our educational system in India. The arch is unstable and decrepit because the key-stone does not fit.

Secondary education cannot be divorced from either primary education or higher, i.e., University education. If our primary education is faulty or wastes too many years of the child's life the bulk of the nation will be in reality uneducated, however much it figures in school and college lists. If our secondary education has no independent or self-contained existence of its own, but merely forms a stepping-stone towards University education, from which there are many falls and casualties, it must confess itself to be a failure. Few reach the goal; and many faint on the road, and become a nuisance to themselves and to others. Such Secondary Education has no vitality: it is overwhelmed in the complexity of modern life, and it drags down the higher education to which it clings like a drowning man. Our Secondary Education, instead of opening up the doors of useful knowledge suitable for everyday life, merely seems to strain at mental acrobatics or to climb aimlessly on meaningless treadmills. So many of the products of our primary education relapse into illiteracy, with nothing to show but wasted years for themselves and wasted money from our public revenues. The reproach that is sometimes levelled against the whole of our educational system

by illiterate peasants, that it dulls natural wit, has some plausibility because of its maladaptations, which cramp natural, healthy and vigorous growth.

Fortunately there is a distinct awakening in our country. Indeed the awakening is world-wide. In this period of post-war unsettlement "educational development" is a popular cry everywhere. Let us consider for a moment what "educational development" means in different circumstances and environments.

In England, where public and popular education in the elementary stages has been compulsory for at least two generations, the age of compulsory education has been raised several times. A bill is promised in Parliament raising the school age in England from 14 to 15 years. Meanwhile the British Education Department's Circular 1444 recently issued presses for such administrative reforms as can be undertaken in advance of legislation.

In England secondary education has a long history behind it. The great Public Schools, which go back several centuries, trained boys for Classics and the more liberal walks of life. The apprentice system did the same for arts, trade and commerce. The Universities were at the apex. They lived their own independent lives, but have within recent times been brought more and more into touch with Public and Secondary Schools.

Perhaps the chief item in the London County Council educational effort is to be found in the fine system of secondary and technical education which it provides at a minimum cost with the maximum of efficiency for the privileged citizens of the Capital of the Empire. The London County Council has been working on carefully thought-out three-year programmes, which, even when suspended for financial stringency, come into operation again when the stringency is removed, thus insuring continuity of policy and progressive development in all circumstances. In their latest programme they attach a great deal of importance to certain matters, which I shall mention because they have a bearing on our Indian secondary education.

They have progressively improved their buildings. They believe in craft rooms, full apparatus and facilities for art teaching, and every opportunity for practical work and liaison with working industries. They have carefully thought out schemes for the remuneration and grading of teachers, which they constantly bring under review. Their Educational officer is one of the most important Executive officers in their hierarchy. They believe in the selective process for all kinds of schools and have special places provided for in their Secondary Schools.

Their junior and senior Technical Schools and Polytechnics, with day and night classes, and continuation courses, meet the needs of every kind of worker, artisan, or middle-class person, rich or poor, male or female, with every kind of aptitude and talent.

These things offer many indirect suggestions for dealing with our Indian problems. But there is now a large body of educational literature that directly deals with our Indian problems. The Hartog Committee had only limited terms of reference. But they pointed out the many gaps and maladaptations in our educational system. The Punjab University Enquiry Committee of two years ago found itself compelled, in discussing University reform, to go into questions of secondary education and to suggest means for bringing it into alignment with general educational reform. Unfortunately the results of their labours still hang fire.

Meanwhile the United Provinces Government and the Government of Bengal have been working out detailed proposals to meet the universally expressed dissatisfaction with the present scheme of education. The United Provinces Government in Section 9 of their Resolution dated the 8th August, 1934, suggest "a secondary course, of which the object should be to provide a general education complete in itself and untrammelled by University requirements." The course which they contemplate is to cover three years and conform to four parallel types: (1) industrial, (2) commercial, (3) agricultural, and (4) arts and sciences. If "industrial" is intended to cover training in arts and crafts and manual labour, and if "arts and sciences" are held to cover two parallel streams leading up respectively to a high literary course in the Universities and a course in the higher sciences, this description may be considered reasonable, although we shall probably differ as to the relative importance to be attached to each of these types.

For my part I would put the agricultural type first, as dealing with numerically the largest section of the population and as tending in some ways to check two tendencies which have already appeared in India but which have not yet gathered any great intensity. Good agricultural education would help to prevent the depopulation of the country-side or its denudation of its best brains in favour of the towns. Good agricultural education should help in preventing undue exhaustion of the soil and deterioration in the material prospects of agricultural life. We ought to be able to get more wealth out of the land than we get at present. Such education, aided by the resources furnished by the skill of modern science and organisation, should not only

help to produce larger crops, but should also lead to the utilisation of raw materials to better purpose in the simpler processes of manufacture, which are better described as agricultural than as industrial. For example the dairy industry and the manufacture of ghee, butter and cheese or the poultry or egg industry and the simpler manufactures out of the Gur or Sugar industry would all be taken out of the rut of outworn methods and be started on modern lines, thus enabling them to meet modern needs. There would also be simultaneously a better organisation of marketing, for both the home market and the foreign market, and a better organisation of rural credit, so that the agricultural producer is not unjustly exploited by the monied interests whose stronghold is in the towns. If you examine world prices and compare the return given to the agricultural producer for his capital and skill with the return given to the middleman exporter or the town manufacturer, you will find that the scales are heavily weighted against the primary producer. This arises chiefly because (1) he is uneducated, and (2) he is unorganised and unable to meet the strong combinations pitted against him. A sound modern education based on economic geography will go a long way to remedy both these defects. I would therefore put the agricultural scheme first in order of importance.

Next in order I would put craft training, which I suppose would be included under the United Provinces scheme under the head "industrial." But I would urge that the large industries, especially those which involve huge aggregates of capital and gigantic organisations, are still out of the reach of the masses of rural India. Further, industrialism as understood in the 19th century is now finding more critics than defenders. Furthermore, the intense industrialism of such countries as Belgium and England seems to me to be unsuited to the genius of the Indian people or their habits or climatic conditions. On the other hand there is a great deal of manual and manipulative skill which we seem to have been in danger of losing for the last two or three generations, but which we can still recover under a proper system of education.

I would put the commercial branch of secondary education as coming next in importance, and pure literary and scientific courses as last in importance, with reference to the numbers affected thereby. I must not be understood to say that they are in themselves the least important. On the contrary I think pure Literature and pure Science are the highest products of human intelligence and the human genius. But their pursuit can only be undertaken by the specially gifted. Those specially gifted

must necessarily be a very small proportion of the whole community. What we deplore is the absence of an efficient system of education to discover these specially gifted and to remove all obstructions from their path, so that they and not those who are not fitted for them should undertake these nobler tasks. This class will be the only one in whose case Secondary Education will be only a stage leading up to Higher Education.

The Bengal Government in their resolution dated the 27th July, 1935, consider that an "overhauling of the whole system of education has long been overdue." The scheme which they adumbrate is very comprehensive, and it is not necessary here to pursue it in all its details, especially as I have discussed some of its points in speaking of the scheme of the United Provinces. The Punjab also, and indeed I believe most of the provinces, are in their own way tackling the question of practical reforms in education. Every one agrees that the present system is unsatisfactory, and that effective remedies are needed.

The recently constituted Central Advisory Board set up by the Government of India has recorded its opinion "that every Local Government should actively explore the possibility of finding new avenues of employment and occupation and also provide for the training of suitable experts who would advise young men and women in regard to their aptitude and fitness for particular careers suited to different regions." This Board has also set up a Committee to investigate the position of Secondary Education. In this respect perhaps the Board has correctly echoed the notion in the popular mind that the test of sound education is to be found in the "avenues" that it opens up for "employment or occupation." Sir Tej Bahadur Sapru's valuable studies and reports on unemployment and similar efforts in various provinces point in the same direction. This undoubtedly is good and necessary as far as it goes. No state or community can lead a good or healthy life without the supply of fresh and vigorous blood to the body politic in the form of assured means of livelihood in conditions of both moral and material well-being.

When we consider that various new activities are being opened up for educated men in the wake of new discoveries in the arts and sciences and in the apparatus connected with them, we shall see that education of the right type will produce men who will be readily absorbed in the new industries thus opened out. I could instance the cinema industry, with its various branches of film production and photography, cinema theatres and their organisation, and the various ancillary activities connected therewith; radio and broadcasting with the various

connected branches, such as the construction of receivers, the putting up of radio stations, the organisation and running of broadcasting stations, and the officials and artists employed at these broadcasting stations etc.; civil aviation, in its various branches of construction and the assembling of parts, the preparing of aviation stations, the training of pilots and ground workers, and all the men employed in connection with such transport activities; these and every new art or industry that arises in modern life must necessarily absorb a fair number of educated men if they are only suitably and sufficiently trained for the purpose. The Indianisation of the Services, including the Defence Services in the Army, Navy, and Air Forces and the Indianisation of the larger banking, shipping, insurance, and electrical services will also tend in the same direction. It really seems to me that the expanding demand in these directions is at present greater than the supply of indigenously trained men.

I have carefully gone into the various aspects of the unemployment question and have personal experience of many hundreds of students who complain of unemployment. It seems to me that those who are properly trained in the sort of employment they seek readily find employment. It is those who seek openings for which they have had no training or aptitude or those who flock to overcrowded walks of life where there is no elbow room, that are left behind in the race. As there is no niche which they can fill, their numbers swell progressively while the demand for trained men to fill many new avenues of employment remains unsatisfied. Ultimately, therefore, it is the maladjustment of secondary education that leads to the troubles from which we are suffering. This is partly due also to the disturbance of the whole social balance in the communities and in the country at large. Those who think that mere expansion of what they call industrial education or technical education or commercial education will by itself solve the problem, are pursuing a mirage. There must be industries, arts, or commerce of the particular kind which these institutions are to feed, before the money spent on them will be justified by the results. And we must be very careful not to fall into the error of supposing that efficient education can be tested by the amount of money spent on it. A comprehensive review of all the conditions social, industrial, technical, agricultural and psychological will be necessary before satisfactory solutions can be reached.

When all is said and done, the question of preparing for vocations or employment is not the whole question in education even if we confine ourselves to secondary education. Secondary

education has also a higher cultural and moral mission. From this point of view it occupies a very honourable place in the life of the community at large. Primary education is meant to place the instruments of learning in a child's hands. He learns to read and write and to count; and he also forms habits of regularity and method; if primary education is properly directed, he also learns to use his hands and the care of his health. In secondary education we carry all these processes a little further. But we superadd to them the knowledge of facts and ideas, perhaps more facts than ideas at that stage. But without ideas education will be like a body without a soul. In secondary education the growing person must begin to realise himself and to express himself in language.

The vast mass of people in any normal nation think and express themselves in their own vernacular. If India had a single vernacular that would be not only natural but inevitable. We might employ other languages as subjects of study, but our own mother-tongue would be the medium of expression, the medium of teaching, and the predominant instrument for the unfoldment of our character. Unfortunately we have no one vernacular, and therefore we cannot claim to have a national Indian language. Various proposals for a single vernacular have been discussed. Perhaps Hindustani may—I hope it will—develop to be the universal Indian national language. When that happy contingency occurs there will be no difficulty. Just as in France a Frenchman's main education is in French or in Germany a German's education is mainly in German, so in India our main education would be in the Hindustani language. When we begin to use it for the expression of all ideas it will become fit to be the vehicle of all our ideas.

But unfortunately in the present state of India it is only an ideal for the future. There may be people who do not want the unity of India or who though doing lip service to the ideal of unity do not care enough for it to back a universal national language. They may be content with eight or ten distinct areas or countries mutually unintelligible to each other. If there are such people they will naturally develop provincial languages as national languages in their respective provincial areas, for in that case India would not be one nation but many nations. But even that ideal is unattainable unless the constitution of the Provinces is radically altered and a number of new Provinces are created. To me that seems to be a reversal of the whole trend of our ideals, which have hitherto been aiming at the unity of India. In the British period that unity has been partially attained for the

intellectual classes by the English language. It is difficult to see how under the present conditions the English language can be discarded without serious loss to the cultural life of India. But it is almost agreed on all hands that in secondary education we must do all we can to have the medium of instruction in the vernacular or the vernaculars of the provinces, while we give a prominent place to English as a subject of study and also unify our courses of study, so that as far as possible the minds of the students may be directed to similar cultural aims, however much they may differ in social position or in trades and professions.

The question of age in education is important, but has not been sufficiently emphasised in our discussions on the reconstruction of education. It seems to me that in the ages before five or six we should provide more and more facilities for kindergarten education. By the age of seven or eight we should have given our children the faculty of reading, writing and counting, and an average coordination of hand and brain. Thus every child, boy or girl, should have the opportunity of being instructed by the State or by private agencies. He or she must be able to read public notices and keep elementary accounts and be above the slough of illiteracy. At seven or eight his real education, as concerned with facts and ideas, logic and coordination, begins, and should continue in its early stages till about 12 or 13. After that he should be able to tackle knowledge of a higher kind or acquire skill of a manipulative kind with some reference to his own faculties or aptitudes or social expectations. This is the age for the Senior Public Schools in England. About three years in this course should give a man or woman a fairly good idea of the world around him and entitle him to be called educated. For entry to this course there should be a strict method of selection, so that square pegs are not driven into round holes. In any nation it is only a small proportion that will be found fit to go into the literary, philosophical, or purely scientific courses. By far the largest proportion would by this time be thinking of acquiring the preliminaries of knowledge and skill for the ordinary middle-class occupations, trades, or professions. At about 15 or 16 the more promising students will pass through a selective sieve that will pass them definitely on to channels such as those we considered in connection with the United Provinces scheme of Secondary Education. Those who pass through the sieve may continue their general education but such education will be linked with some apprenticeship to a trade or calling of a grade other than that which is labelled under the description of the learned professions. In most countries this would be

called higher secondary education. In any case the youth of the nation will be drawn into various sluices pointing definitely to various avenues of employment. These various channels of education and employment were, in a happy simile, compared to the different irrigation channels which fertilise a country, in Sir Herbert Emerson's address as Chancellor to the Punjab University in December, 1935. At 17 or 18 the students would definitely be drafted into the various channels of employment below what we may call the learned professions. For the learned professions they would have to undergo a course of higher education, which will correspond with their entry into the Universities.

It is not relevant here to discuss the question of University reform. But it may be said that if the early stages of education are properly graded and a strict test is imposed before admission to a University, the actual number which will be found fit for University instruction and which will wish to enter that education will be small. This will relieve the Universities of the incubus of numbers and enable them to proceed with a really high standard of education.

All this requires that the training of teachers shall be correspondingly modified to suit the needs of the various kinds of schools that we shall require in secondary education. The training schools and training colleges have had only a short history in India. During this short period I think they have made good their claim to be considered the true keys of education. Still it cannot be denied that they are hampered by many difficulties and that vigilant care is required to prevent them from becoming merely mechanically efficient without powers of elasticity and adaptation. Any one who wants our new educational ideals to be realised must look first to the teachers,—not only to their training, but also to their emoluments, the opportunities they enjoy for increasing their knowledge and keeping it fresh and up-to-date, and their touch with the practical problems which arise out of the linkage of secondary education with vocational institutions. The most perfect system will fail unless we have teachers who understand, practise, and develop that system.

You will probably ask: what about the special needs of the Muslim community? In my opinion the Muslim community will be well-advised to accept a broad-based educational policy that fits in with the general conditions of the country, and not seek for special corners of isolation. It will be in their best interests and the best interests of the country. They can give a special tone to their education through Sunday (or Friday) Schools for religious instruction, or through home instruction in religious

ideals. They are entitled to ask for grants for their own denominational institutions which in all essentials conform to the public type. They are also entitled—indeed it is their duty—to cultivate specially the arts and crafts in which they have excelled or for which they can discover new aptitudes. Every community should do so. But any community which is afraid to swim in midstream with the rest of its sister-communities will find nothing but disappointment and disillusion in the final verdict of History.

EDUCATION IN RURAL INDIA

BY

F. G. PEARCE, B.A. (Lond.), F.R.G.S.,

Principal, The Scindia School, Gwalior.

(A Paper read before the Rural Education Section of the last World Conference on Education at Oxford).

I ought, perhaps, to preface my remarks with the statement that I am here concerned simply to present you with facts. I hold no brief either for the powers that be, nor against them. As an educationist, pure and simple, I am concerned first to try to envisage the problem clearly, and then to try to do my share in working towards its solution when found.

The first fact to be stated is this: assuming with the Hartog Committee that the school-going population is approximately fourteen per cent of the total population, India ought to have nearly fifty million children in her primary schools; actually she has about one-fourth that number. In some provinces, notably Madras, more than half the number of boys of school-going age are in school; but the much lower proportion of girls receiving education, even in the most advanced provinces, brings the final percentage down to the figure stated. Within the last few years, however, a welcome change in the general attitude towards women has been noticeable in many parts, and this is likely to show itself in the statistics of education in the near future.

Getting children into the primary schools is one thing; keeping them there till they have acquired a solid foundation of literacy, with the capacity to build upon it, is quite another. And this is at present the weakest spot in India's educational armour. The wastage in the primary schools, especially in rural primary schools, is appalling. Out of one hundred children who enter class I only twenty-one reach Class IV, and only fourteen complete the course. In the previous quinquennium the number was thirteen, so the improvement in five years has been very slight.

It is this feature that makes all serious educationists in India far more concerned at present: to increase the effectiveness of primary education than merely to extend it. For it is perfectly clear that if only 20 per cent of those who enter the primary schools succeed in attaining literacy, then a very large proportion of the money spent is absolutely thrown away.

In his latest report Sir George Anderson, Educational Commissioner with the Government of India, examines some of the reforms proposed. It is in the single-teacher schools in particular, he points out, that wastage is more rampant, and while increase and improvement in the training of teachers is clearly of the first importance, efficiency and economy would both be served if, instead of an area being served by a multiplicity of inefficient single-teacher schools, effort could be concentrated into a smaller number of larger and better schools. But the great obstacle in the way of this, in a country like India, is the sheer vastness of the territory, and the fact that almost the entire population outside the towns lives in innumerable tiny villages, miles apart. Unless, therefore, the children are to be made to trudge long distances to and from the schools, many small schools are inevitable. The ideal and only permanent solution clearly is a vast increase in the number of trained teachers. Till those are provided, it seems mere waste of money to multiply the number of schools.

This leads us to our next fact. Primary school teachers, for the most part, are at present recruited from those who have received their education in town schools. They have generally speaking, but little real interest in village life; they endure it as long as they must, chiefly in the hope that promotion will take them back to the town and to the environment they have become accustomed to. Such teachers, it is evident, are unlikely to be capable of making a village school all that it might be. For this reason again, practical educationists in India are trying to devise ways of fitting the promising village child to go back to his own village or to a neighbouring one, after training, and to use his newly-acquired abilities there rather than to seek employment in the town.

While improvement in the quality of the village teacher is undoubtedly the chief factor in the reform of education in rural India, the problem has to be simultaneously tackled from the other end also. This leads to my next fact. One of the principal reasons why the towns draw away the most promising young people from the villages and make no corresponding return, is that life in an ordinary village in India is so dreadfully drab, dull and hopeless. This is due almost entirely to appalling poverty. The official estimate of the average income per head in India, including the incomes of the town-dwellers and the wealthier classes, is £2 per year. If the incomes of the wealthy minority are excluded from the reckoning, the average works out at something like 15s. per year, or rather less than a half penny

per day per person. It is obvious that people who live at this level can have little energy left for anything outside the actual struggle for existence. To speak of education at all amid such conditions might seem like madness. But it does not appear so mad when one visits an Indian village and observes how much of the poverty is due to ignorance, and to the disease and waste that follow in its train. More people perished of influenza alone in India in 1918 than were killed on both sides during the four years of the Great War. Sir John Megaw, Director of the Indian Medical Service, says that the average number who annually suffer from malaria, a preventable disease, is fifty millions, the number may easily rise to one hundred millions (more than one person out of every four) in some years. It is hardly to be wondered at that the average expectation of life is only twenty-three years, as against fifty-five in England and Wales.

It seems pretty clear that all who live in India with any object other than mere self-seeking have at last arrived at the conclusion that whatever means can aid the Indian villager to earn more and improve his standard of living ought to be welcomed. And this probably accounts for the now very considerable number of agencies, both official and non-official, Indian and foreign, missionary and non-sectarian, which are at work trying along a number of different lines to bring about what is variously termed 'rural reconstruction,' 'village uplift,' or 'rural welfare.' The variety of methods is certainly all to the good at this stage, because in a country of the size of India with such a diverse population it is unlikely that exactly the same methods can be made to succeed equally well everywhere. On the other hand, it is fortunate that there exists at least one body, the Indian Village Welfare Association, whose object is to collect and collate information about the experiments being tried in different parts of the country, as well as to support such efforts as its members consider to be on sound lines.

And though perhaps these activities do not come strictly under the head of 'education,' they are so directly connected with the same object as that which rural education must achieve if it is to be anything more than mere instruction in the three 'R's,' that I feel it is essential to include in this review some account of a few of the most important of them.

Since the necessity of being brief compels me to select only a few of the experiments for mention here, I propose to choose three : the first of them, originated by India's poet-laureate, philosopher, novelist, playwright, educationist and painter, Dr. Rabindranath Tagore, represents the purely non-official effort,

unaided by Government. The second, the work of Mr. F. L. Brayne, I. C. S., is its very antithesis. The third, Dr. Spencer Hatch's work in Travancore, represents missionary enterprise, but on such a broad non-sectarian and non-evangelical basis that it receives support not only from the Government of the Hindu State of Travancore, where it is carried on, but also non-officials of all castes and classes. Let me hasten to add that in mentioning these three experiments in contrast to one another, I do not wish to imply the inferiority or superiority of any. On the contrary, I mean to show that efforts are being made to tackle the same problem from all sides and by all possible agencies, and that each contributes experience which cannot but be of value ultimately in helping to reach a solution.

It is surely significant that Mahatma Gandhi himself is now in the forefront of those who regard rural reconstruction and education as the task of all the tasks that demand the urgent attention of research workers and pioneers of progress in India.

This same was the conviction of Rabindranath Tagore, years back, and as a result of it he founded in due course his Institute of Rural Reconstruction, Sriniketan, side by side with his famous school, Shantiniketan, as an integral part of his International University, Viswabharati.

Sriniketan is a colony in which along with experimental work in agriculture, sericulture, and the revival of village crafts, an attempt is being made to reconstruct from within the life of several neighbouring hamlets, of which an exhaustive scientific survey and study is being made. Workers from Tagore's own colony of Shantiniketan are training promising children of the villages to return thither as teachers in the village schools. Groups of the village boys are trained for social service and co-operative uplift work, on lines similar in many respects to the Boy Scout training. Co-operative societies and a central bank have been formed, to enable the peasants to free themselves from the clutches of the ordinary money-lenders who charge such exorbitant interest on petty loans that their creditors generally become their life victims. A fine spirit of self-sacrifice and eager collaboration pervades the institution, a spirit emanating from its founder and head, and influencing the entire body of workers, and pupils from top to bottom. The aim of Sriniketan is ultimately to revive in the villagers themselves the spirit of self-reliance, self-help and co-operation, which will enable them to carry on and develop by themselves the various activities for the improvement of their life.

Mr. F. L. Brayne, of the Indian Civil Service, is known to many through his brilliant books 'Socrates in an Indian Village' and 'The Re-making of Village India' (Oxford University Press). His method at Gurgaon, near Delhi, from 1920 to 1928, and now in the Punjab, has been to carry on a vigorous intensive campaign to persuade the villagers (one might almost say to goad them with every possible instrument of persuasion, official as well as unofficial, short of actual force) into cleaning the village streets, digging rubbish-pits and silo-pits, getting themselves and their children inoculated, vaccinated and dosed with quinine, and avoiding wasteful expenditure and indebtedness incurred through litigation. To carry on this work, whole-time helpers known as village guides have been trained, and unofficial assistance roped in by the formation of Rural Community Councils. The advice and help of the various official departments concerned has been secured, the more easily because Mr. Brayne himself is a high official of the Government. At Gurgaon a good many of the useful activities started did not long survive the removal of the vigorous and cheerful presence of Mr. Brayne, and it remains to be seen how far his methods, now somewhat modified in the light of experience, will be successful in the Punjab where he is now working as Commissioner for Rural Reconstruction. Whatever may be the immediate results it is only fair to record, as Mr. Strickland does in his booklet on Rural Welfare Activities, that : 'The principal value of the Gurgaon experiment lies in the great impression made on the Indian public outside Gurgaon, the demonstration that the peasant could be induced to welcome rural reconstruction, and the awakening of Governments and private persons to the fact that the time had come for an advance on a wide front. There are few recent schemes of rural welfare in India which have not manifestly been stimulated by the Gurgaon experiment and which do not adopt many of its ideas.'

Dr. Spencer Hatch, a Y. M. C. A. worker who has chosen the South Indian State of Travancore as his field of labour, has attempted to tackle the problem from another angle, nearer to that of Dr. Tagore's experiment than to that of Mr. Brayne's, but making use rather more definitely of the human motive of personal gain, which, if at all it needs excuse, is surely most excusable in the case of down-trodden villagers who possess next to nothing of their own. In his book, 'Up from Poverty' (Oxford University Press, 1933), Dr. Hatch, describing his work, says : 'The central principle involved is self-help with intimate personal counsel.' The method can best be described in a nutshell through the following passage culled from Dr. Hatch's book.

It runs as follows : ' A beautiful White Leghorn cock proudly surveys his flock of a dozen busy, healthy, crimson-headed laying hens. They are the joy of the village family who live in this modest little thatch and mud hut. Try to buy one of these hens. "No," the village man says, "why sell any of my hens? I sell big eggs through my co-operative society, at high prices." The Indian villager is wiser than was the owner of the goose that laid the golden egg. A progressive village family like this, which makes success with any of the projects we are teaching, is a demonstrator par excellence. The neighbours say, "Here is a family like ourselves. What they are doing profitably, we can do." This demonstration is copied where one at a Government farm or even at our Centre probably would not be. I can show you where villages miles from our Centre have become interested in better poultry, through a single successful pioneer family in each village. The discovery of the demonstration method for rural improvement is one of the greatest contributions to agricultural science. It is not only a discovery of a new rural truth, but of a new way of disseminating all the vast treasures of truth that others have developed. Demonstration is the most effective of all teaching methods. . . . As we use it, it is the method of seeing and doing. The learner sees helpful practices illustrated at the Demonstration Centre, or in his village, at his own home or at the home of a neighbour; and he is given the opportunity actually to have a hand in—to do the thing—himself.'

From the above it will be seen how Dr. Hatch applies the principles mentioned in the first quotation from his book. The 'intimate expert counsel' he provides for the villager in the shape of some well-tried means of increasing the villager's welfare or prosperity, be it in the form of a better breed of poultry, cattle, goats or bees, co-operative marketing, or better organisation. The villager's own experience provides him with the proof of the soundness of the counsel; self-help follows, and along with it a practical lesson in the value of co-operation, at first no doubt with the main object of personal profit, but later on with the added motive of benefiting the community in order to benefit each and all.

From very small beginnings Dr. Hatch has now developed, with the assistance of non-officials of all classes and castes, and that of the Travancore State Government, a number of centres at which are trained workers, who in their turn become the nuclei of similar centres of 'intimate personal counsel' to others. The centres also serve as demonstration centres, and it is important to note that no attempt is made to enable them to demon-

strate things on an ideal scale which would be quite out of reach of the average villager. The aim is to provide examples of just exactly those improvements that lie within the means and the ability of the ordinary poor peasant to effect for his own and his neighbours' benefit. For example, in addition to the improved poultry, cattle, goats and bees, there will be plots of grass and other richer fodder crops grown from seed locally available, for shortage of fodder for his tiny flocks is one of the most serious problems that the Indian farmer has to face. There will also be seen demonstration plots of superior vegetables and fruit marketable at higher rates than the produce usually grown. The poultry-houses will not be ideal expensive ones, but just such as the poorest villager can make out of materials at hand. Likewise the bee-hives, farm implements and cattle sheds. There will also be a hand-loom, and a helper to teach the working of it. Outside there will be a model bore-hole latrine, and the rest of the yard will be a playing field for the children, practice ground for the Scouts, and volley ball courts for the older youth. Every centre has its library, which is also the centre of the circulating library of the area, and its small hall used for meetings, lectures, exhibitions, shows and dramas. In short, these centres are the nuclei of life and culture for the locality. An area of about 100 miles has thus been gradually permeated with new hope and vitality. The experiment seems to be full of promise on the economic as well as the educational side. This is its special significance, for, it seems to me any attempt to assist the Indian villager, which does not help him materially as well as morally, is doomed to failure.

It may seem to some of those who read this paper that I have allowed myself to wander too far from the topic of education in its strictest sense. My excuse for having done so is that, if I am certain of any one thing about India after having spent all my life in educational work there, it is that one of the greatest curses of India at present is that so-called education which is merely the cramming of books. It has spoiled the teachers and it has spoiled the taught. And it has created in our time a vast class of 'educated' unemployed, young men who with matriculation certificates or even university degrees are crowding the towns, unable to find work that they can do, and unfit to do the work that needs doing so badly. Having seen this, having been myself for most of my life a part of the system that has produced it, I may perhaps be forgiven if I interpret the term 'education,' especially as applied to rural India, as meaning a training that will fit the boys and girls, the men and women of that marvellous,

lovely, yet so piteous country-side, to make of themselves something better than they are, and to make of their great country, in the years to be, a country that may contribute anew, as it has contributed in the distant past so much, to the enrichment of the culture of mankind. My own belief is that India is capable of doing that, and that she will.

GRANT-IN-AID RULES IN INDIA

BY

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Private schools in this country like such schools in some of the countries of the West have played an important part in the educational advancement of India and still occupy an important position in our educational system. It is a plain truth that no improvement in the status and emolument of the average teacher is possible unless there is an improvement in the financial condition of the Government aided private schools.

The financial condition of a school depends upon three factors:—

- (a) Income from tuition fees,
- (b) Income from donations & endowments,
- (c) Income from Grant-in-Aid.

During recent years due to transformation in our views about education necessitating the employment of trained and highly paid staff even at the lowest stages of school there has been an increase in expenditure. Whereas due to unfavourable business conditions and indifference towards mere secular education these schools have been unable to attract public donations to the extent to which they used to attract in the past. Thus we find that the dependence of our schools on Grant-in-Aid has greatly increased. It is for this reason that the question of Grant-in-Aid has assumed such important aspect in our schools.

In assessing Grant-in-Aid different factors are taken into consideration under different systems. I would like to deal with them briefly:—

1. *The grade of the school.*—The rates of Grant-in-Aid are different for Secondary schools and Primary schools.
2. *The size of the school.*—Grant per capita is fixed and the total grant known as the Block Grant varies with the size of the school. This is used in

many provinces as the basis of calculation. But taken alone this basis is not equitable because the cost of educating a child in a Secondary school is much higher than the cost of educating him in a Primary school and further the cost of educating a child in a big school is smaller than what it is in educating him in a small school. This factor tends towards overcrowding in our schools.

3. *Expenditure on staff.*—This encourages the management of private schools to engage better qualified staff and pay their teachers well. It, however, favours the rich big schools which need little help and reacts unfavourably against small poor schools. Thus those who have more get more and those who have got less get less.
4. *Quality of Education or payment by results.*—This principle of fixing Grant-in-Aid on the result of the examination stands discredited to-day and has been displaced in practically every province. Discretion, however, is given to the Inspecting Officers in some of the provinces to vary the gradation of Grant-in-Aid to be paid to a particular school as a result of inspection of the school.
5. *Income of a school from private sources.*—This principle is based on the view that the Government should encourage private enterprise and local efforts. In some cases income from fees is included in calculating income from private sources. In its simplest form grant bears a fixed relation to income from other sources. Grants on this basis will be much greater in the case of rich and big schools and much less in the case of small and poor schools in backward areas.
6. *Total approved expenditure.*—The principle is favourable to the big rich schools with high expenditure.

In the assessment of Grant-in-Aid different provinces take into consideration more than one of the above factors. I would now briefly deal with the Grant-in-Aid systems of different provinces.

MADRAS.—The amount of Grant-in-Aid payable in any year is half the approved net cost for the preceding year, i.e., half

the excess of the approved recurring expenditure over the income from tuition fees reckoned at standard rates. In addition half the expenditure incurred on scholarships and fee remissions upto 10 per cent of the fee income reckoned at standard rates is admitted.

BOMBAY.—In assessing ordinary grants, building and equipment, attendance of scholars, qualifications and pay of teachers, standard and quality of teaching and discipline, and the conduct of the students are all taken into consideration. The total grant, however, must not exceed $1/2$ of total assets or $1/3$ of total expenditure.

BENGAL.—Recurring grants are usually sanctioned for a period of three years but they are liable to revision at any time. Grants do not ordinarily exceed one-half of the amount contributed from private sources.

UNITED PROVINCES.—Grant-in-Aid is divided under the heads:—

1. Fixed Grant:

High Department	...	Rs. 1,000	per annum.
Upper Middle	...	Rs. 500	„
Lower Middle	...	Rs. 300	„
Upper Primary	...	Rs. 200	„

2. Attendance Grant:

In the High and Middle Rs. 6, in the Upper Primary Rs. 4, in the Lower Primary Rs. 3 per average attendance.

3. Staff Grant:

For each trained graduate Rs. 144 per annum, for each undergraduate Rs. 60 per annum.

4. Special Grant:

When the income of a school from fees, private sources and ordinary grants is not sufficient special grant is awarded. The annual grant shall not exceed the difference between the expenditure and income from fees etc., or 50 per cent of the annual cost of maintenance whichever is the less.

PUNJAB.—Grants in the Punjab are divided as:—

1. Maintenance Grants,
2. Building Grants,
3. Extraordinary Equipment Grants.

1. Maintenance Grants are of the following kinds:—

- (a) Block Grants,
- (b) Staff Grants,
- (c) Provident Fund Grants,
- (d) Boarding House Grants,
- (e) Special Grants.

I shall only discuss Block & Staff Grants in this paper.

(A) Block Grant:—Based on the average attendance during the three years preceding inspection. The rates of Block Grants are Rs. 3, in the 1st and 2nd classes, Rs. 5 in the other classes of Primary Department, Rs. 16 in the Middle Department and Rs. 24 in the High Department. These grants are double in the case of girl schools.

(B) Staff Grants are to be at the rate of 1/3rd of salary paid and are admissible only for certificated teachers or graduates of less than four years' standing who have served for more than two years after graduation.

The total grant awarded to a school under the heads of Block and Staff Grants is not to exceed 3/4 of the excess of approved expenditure on tuition over the income from fees calculated according to the scale fixed by the Government.

For the purpose of awarding grants a school shall be classified as either (a) Excellent or (b) Satisfactory or (c) Fairly satisfactory.

The maximum grant earned under the above heads shall only be awarded when the school has been classified as excellent, which is never or seldom the case. A school classified as fairly satisfactory shall be awarded 75 per cent of the full rate and a school classified as satisfactory between 75 per cent and 90 per cent of the full rate.

From the above analysis we find that in the Punjab, the system of Grant-in-Aid is not based upon any one system of grant but is a combination of

- (a) Graded Education System,
- (b) Capitation System,

(c) Salary Grant System,

(d) Efficiency System.

BIHAR & ORISSA.—Fixed Grant-in-Aid is given to maintain a prescribed scale of establishment.

To a High school Rs. 535 p.m. and to a Middle school Rs. 160 p.m. are given as Grant-in-Aid. These rules are distinctly beneficial to small schools.

NORTH-WESTERN FRONTIER PROVINCE.—Minimum scales of staff and expenditure are fixed for schools of different types. For Anglo-Vernacular schools the minimum staff salary fixed comes upto Rs. 300 p.m. for High Department and Rs. 200 p.m. for the Middle Department.

Maintenance Grants are divided into three kinds:—

(i) Ordinary Maintenance Grant.

The difference between the estimated fee receipts and the standard scale, forms the amount of grant under this heading.

(ii) Special Grant.

A special grant is payable for every teacher of an Anglo-Vernacular School possessing higher qualifications or drawing higher pay than that prescribed.

(iii) Additional Grant for an additional teacher.

BURMA.—Grant-in-Aid are of the following kinds:—

1. Recurring Grants,

(i) Maintenance Grants,

(ii) Miscellaneous Recurring Grants.

2. Non-Recurring Grants.

Maintenance Grants—free pupils.

It is further laid down that the total amount of recurring grant-in-aid shall not exceed the difference between the total income from all sources other than the recurring grant and the total recurring expenditure in a year.

Such in brief are the Rules of Grant-in-Aid obtaining in different provinces. Some systems are favourable to small schools with a comparatively expensive staff, while others are more favourable to big schools. There is no doubt that the rules in some of the provinces are more favourable than in others but whenever there is discretion left in the hands of the Inspecting Officers to arbitrarily reduce the total grant earned, there is a

general complaint that the discretion is used to the prejudice of the schools concerned causing lack of financial stability.

For any good system of Grant-in-Aid it is essential that the rules:

- (a) should be liberal,
- (b) should be definite,
- (c) should be easy of application.

None of the systems of Grant-in-Aid described above possess all the above qualities par excellence but taken as a whole the systems of Grant-in-Aid prevailing in N.W.F.P. & U.P. are better than others.

There is a great need of uniform rules of Grant-in-Aid for all the provinces, but as Education is a transferred subject, so it does not seem possible that all the Provincial Governments will agree to a uniform set of rules. However, we should try to get the rules in our respective provinces amended with a view to make them more liberal and definite and less arbitrary.

A PRELIMINARY STUDY OF CORRELATION AMONG DIFFERENT SCHOOL SUBJECTS.

BY

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In a recent paper* I had tried to vindicate the educational value of the statistical analysis of marks and in that connection I had studied the correlation between English and Mathematics on the basis of examination results in these subjects of classes IX and X. The study proved interesting from various points of view and hence a more detailed examination was thought desirable. Subsequently I came across a highly interesting paper† by Messrs. P. C. Mahalanobis and K. N. Chakravarti, in which the authors made a statistical analysis of marks in English, Mathematics, Vernacular and History-Geography in the S. L. C. Examination of U. P., of 2,357 candidates. The authors had come to certain interesting results and had tried to explain and discuss them. The paper at once inspired the idea that since the S. L. C. Examination of U. P. has been replaced by the High School Examination it would be profitable to analyse, in a similar way, the marks of the High School Examination and make a comparison of the two results in order to find out whether there is any concurrence between the two results. It would be of interest to study the effect of common medium also because the vernacular medium has been introduced in the High School classes also. But since the High School Examination data were not available, it was thought not unwise to start with a small unit—the results of the Home Examinations and analyse them in a parallel way. This may at least give some idea as to how far the changed circumstances change the correlation. The following pages will show how far the expectations have been fulfilled.

* "Research in Education"—Read in the 16th Annual Conference of N. G. E. O. Association held at Cawnpore. Shortly to be published in the U. P. Education.

† "Studies in Educational Tests No. 3. Analysis of marks in the S. L. C. Examination in the United Provinces, 1919."—By P. C. Mahalanobis and Khagendra Nath Chakravarti. Published in *Sankhyā—The Indian Journal of Statistics*, Volume I, Parts 2 and 3, August 1934.

In the present paper an attempt has been made to see how far the proficiency in one subject is dependent upon the proficiency in other subject by studying the total and partial correlation between them. The regression equations, the frequency curves, the equivalent standard of pass marks and the multiple correlation have been left out for the present. The investigation is based on the marks obtained by 49 candidates of class X at the Half-yearly Examination of 1934-35 of the Government High School, Fatehpur. I must thank at this stage, Mr. Ram Bharose Seth, the Head Master of the School, who permitted me to use the examination data, but for which the investigation would have been impossible.

At the very outset it must be pointed out that there were certain difficulties in the way of this investigation which could not be surmounted. Firstly, the low number of candidates must increase the probable error. Secondly, all the subjects were optional excepting English and Mathematics. A candidate has to offer *either* History or Geography, *either* Hindi or Urdu, *either* Sanskrit or Persian or Science or Drawing. Hence the marks in these subjects are likely to be statistically heterogeneous, if taken together. But since there was no marked difference in the general frequency distribution the study cannot be totally unreliable—especially when the data are obtained from the same school and it is expected that there is ordinarily a uniformity in the standard of marking in different subjects in the same school. At least it may be expected that the relative positions of the results would practically remain unaltered and hence a comparison of these results with those obtained by Mahalanobis and Chakravarti would not be unjustifiable. Of course better comparison would be afforded by analysing data obtained from different sources and different year. It may be pointed out here that in the investigation conducted by Mahalanobis and Chakravarti the optionals have not been included (though it formed a part of the subject for the examination) and no reasons are also given. Probably they have been left out due to the heterogeneity of the combination. But the results obtained by me will show that optionals exert a very strong influence on other subjects and hence personally I think that inclusion of optionals would have been an interesting study in the paper from the Calcutta Laboratory.

The first table shows the frequency constants—the average scores in each subject, the standard deviation, the lowest and the highest scores and the maximum marks for each paper. The scores were grouped for the purpose of frequency distribution according to the following ranges: 0—5, 6—10, 11—15, 16—20,

and so on. So that the scores in each group centred round 2.5, 8, 13, 18, and so on.

TABLE 1

FREQUENCY CONSTANTS FOR MARKS

<i>Grouping Unit—5 marks</i>				<i>Number of Candidates—49</i>	
Subjects.	Maximum Marks.	Lowest Score.	Highest Score.	Average Score.	Standard Deviation.
English	150	26	89	55.86	13.81
Mathematics	100	8	79	45.55	13.48
History and Geography	100	22	60	38.41	8.41
Vernacular	100	22	68	39.63	12.22
Optionals	100	26	81	45.14	12.25

A glance at the table 1 shows that mathematics and optionals have the highest average score (45.55 and 45.14). Of course the average score in English (55.86) appears to be the highest but the marks were given out of a maximum of 150 and hence we may take the equivalent average to be 37.84, which comes to be the lowest in the list, though not much different from the average scores in Vernacular and History-Geography which are 39.63 and 38.41 respectively. The standard deviations are of the same order in each case excepting History-Geography which has the lowest standard deviation (8.41), the highest being mathematics (13.48). It shows that in History-Geography, the scores are less scattered than in other subjects—the most scattered scores being in mathematics. There is appreciable similarity between these results and the results obtained by Mahalanobis and Chakravarti. The only marked difference being in the case of vernaculars which had the highest average score in their case. This difference is probably due to the fact that the standard of examination in vernacular in this school is higher than the general standard of examination in the subject.

Tables 2, 3, 4 and 5 show the results of the study of total and partial correlation among different subjects. The total correlation was calculated according to Pearson's Product moment

$$\text{formula } r = \frac{\frac{\sum x'y'}{N} - \bar{x} \bar{y}}{\sqrt{\bar{x} \bar{y}}}$$

The coefficients of partial correlation of the first order were calculated according to the following formula

$$r_{12.3} = \frac{r_{12} - r_{13} \times r_{23}}{\sqrt{(1 - r_{13}^2)(1 - r_{23}^2)}}$$

The coefficients of partial correlation of the second order were calculated according to the following formula

$$r_{12.34} = \frac{r_{12.3} - r_{14.3} \times r_{24.3}}{\sqrt{(1 - r_{14.3}^2)(1 - r_{24.3}^2)}}$$

The coefficients of partial correlation of the third order were calculated according to the formula

$$r_{12.345} = \frac{r_{12.34} - r_{15.34} \times r_{25.34}}{\sqrt{(1 - r_{15.34}^2)(1 - r_{25.34}^2)}}$$

These coefficients have been shown in tables 2, 3, 4, and 5 respectively.

TABLE 2

COEFFICIENT OF TOTAL CORRELATION; N=49

Subjects correlated.	Coefficients of correlation
1. English and Mathematics	+0.4021
2. „ „ History-Geography	+0.6314
3. „ „ Vernaculars	+0.3925
4. „ „ Optionals	+0.3956
5. Mathematics and History-Geography	+0.5311
6. „ „ Vernaculars	+0.4299
7. „ „ Optionals	+0.4895
8. History-Geography and Vernaculars	+0.3559
9. „ „ Optionals	+0.5667
10. Vernaculars and Optionals	+0.5019

TABLE 3

PARTIAL COEFFICIENTS OF THE FIRST ORDER
(One subject eliminated)

Subjects correlated.		Coefficient of Total correlation.	Subjects eliminated.	Partial coefficients.
1.	English and Mathematics	+0.4021	Hist.-Geography	+0.1015
2.	" " "	"	Vernacular	+0.2810
3.	" " "	"	Optionals	+0.2604
4.	" " Hist.-Geography	+0.6314	Mathematics	+0.5337
5.	" " "	"	Vernacular	+0.5722
6.	" " "	"	Optionals	+0.5381
7.	" " Vernacular	+0.3925	Mathematics	+0.2651
8.	" " "	"	Hist.-Geography	+0.2314
9.	" " "	"	Optionals	+0.2441
10.	" " Optionals	+0.3956	Mathematics	+0.2490
11.	" " "	"	Hist.-Geography	+0.0590
12.	" " "	"	Vernacular	+0.2497
13.	Mathematics and Hist.-Geog.	+0.5311	English	+0.3904
14.	" " "	"	Vernacular	+0.4481
15.	" " "	"	Optionals	+0.3531
16.	" " Vernacular	+0.4299	English	+0.3229
17.	" " "	"	Hist.-Geography	+0.3043
18.	" " "	"	Optionals	+0.2443
19.	" " Optionals	+0.4895	English	+0.3929
20.	" " "	"	Hist.-Geography	+0.2702
21.	" " "	"	Vernacular	+0.3505
22.	Hist.-Geog. and Vernaculars	+0.3559	English	+0.1516
23.	" " "	"	Mathematics	+0.1668
24.	" " "	"	Optionals	+0.1003
25.	" " Optionals	+0.5667	English	+0.4449
26.	" " "	"	Mathematics	+0.4153
27.	" " "	"	Vernacular	+0.4801
28.	Vernaculars and Optionals	+0.5019	English	+0.4105
29.	" " "	"	Mathematics	+0.3701
30.	" " "	"	Hist.-Geography	+0.3897

TABLE 4

PARTIAL COEFFICIENT OF THE SECOND ORDER
(Two subjects eliminated)

Subjects correlated.	Coefficient of Total correlation.	Subjects eliminated.	Partial coefficients.
1. English & Mathematics .	+0'4021	Hist. & Vernacular	+0'0336
2. „ „ .	„	Hist. & Optionals .	+0'0891
3. „ „ .	„	Ver. & Optional .	+0'2134
4. „ Hist.-Geography	+0'6314	Maths. & Ver. .	+0'5208
5. „ „ .	„	Maths. & Optionals	+0'4941
6. „ „ .	„	Ver. & Optionals .	+0'5326
7. „ Vernaculars .	+0'3925	Maths. & Hist.-Geog.	+0'2115
8. „ „ .	„	Maths. & Optionals	+0'1927
9. „ „ .	„	History & Geog. & Optionals .	+0'2268
10. „ Optionals .	+0'3956	Maths. & Hist.-Geog.	+0'0330
11. „ „ .	„	„ Vernacular	+0'1684
12. „ „ .	„	History & Ver. .	-0'0347
13. Maths. & Hist.-Geography	+0'5311	Eng. & Vernacular	+0'3651
14. „ „ .	„	„ Optionals .	+0'2617
15. „ „ .	„	Ver. & Optionals	+0'3405
16. „ Vernacular .	+0'4299	Eng. & Hist.-Geog.	+0'2900
17. „ „ .	„	„ & Optionals	+0'1929
18. „ „ .	„	Hist.-Geog. & Opts.	+0'2246
19. „ Optionals .	+0'4895	Eng. & Hist.-Geog.	+0'2659
20. „ „ .	„	„ & Vernacular	+0'3016
21. „ „ .	„	Hist.-Geog. & Ver.	+0'1727
22. Hist.-Geog. & Vernacular	+0'3559	English & Maths. .	+0'0293
23. „ „ .	„	„ Opts. .	-0'0380
24. „ „ .	„	Maths. & Optionals	+0'0155
25. „ Optionals .	+0'5667	English & Maths. .	+0'3441
26. „ „ .	„	„ Ver. .	+0'4217
27. „ „ .	„	Math. & „ .	+0'3859
28. Vernacular & „ .	+0'5019	Eng. & Maths. .	+0'3261
29. „ „ .	„	„ & Hist.-Geog.	+0'3874
30. „ „ .	„	Maths. & Hist.-Geog.	+0'3354

TABLE 5.

PARTIAL CORRELATION OF THE THIRD ORDER
(Influence of three subjects eliminated)

Subjects correlated.	Coefficient of total correlation	Partial coefficients
1. English and Mathematics ..	+0'4021	+0'0403
2. " " History-Geography ..	+0'6314	+0'5012
3. " " Vernacular ..	+0'3925	+0'2129
4. " " Optionals ..	+0'3956	-0'0412
5. Mathematics and History-Geography ..	+0'5311	+0'2744
6. " " Vernacular ..	+0'4299	+0'2105
7. " " Optionals ..	+0'4895	+0'1740
8. History-Geography and Vernacular ..	+0'3559	-0'0934
9. " " Optionals ..	+0'5667	+0'3543
10. Vernacular " "	+0'5019	+0'3364

DISCUSSION OF THE RESULTS

1. History-Geography and Vernacular (+0'3559).

The lowest correlation is between History-Geography and Vernacular—(Table 2). A similar conclusion was also reached by Mahalanobis and Chakravarti though in that case the correlation was not the lowest but highest than the lowest only. It shows that proficiency in History and Geography is not much associated with proficiency in Vernacular. The explanation given by Mahalanobis and Chakravarti is that there is no similarity in the nature of the subjects and there is no common medium also. The first may be true in this case also but the second should not be true in view of the fact that most of the boys answer the History-Geography papers in vernacular. Hence there should have been a higher correlation though actually it is distinctly lower. There is one factor to be considered no doubt that though the answers are written in vernacular yet the medium of instruction and the text books followed in school in History and Geography are in English. Hence inspite of the common medium, the correlation remains low. Thus the dissimilarity of subject matter cannot be balanced by the so-called common medium. A study of tables 3, 4 and 5 will show that there is so much dissimilarity that if the influence of other subject be eliminated, the correlation becomes negative. Optionals exert a very strong influence on the correlation between History-Geography and vernaculars as will be clear from the fact that if optionals be

eliminated the residual correlation coefficient is $+0.1003$ (Table 3). If English also be eliminated, the coefficient becomes -0.0380 (Table 4) and if all the other subjects be eliminated, the coefficient comes down to -0.0934 (Table 5), showing that proficiency in History-Geography is negatively related to the proficiency in Vernacular. Mahalanobis and Chakravarti also have found that the correlation between History-Geography and Vernacular is reduced to $+0.0734$, if the influence of English and Mathematics be eliminated, as against $+0.0294$ in the present case (Table 4). The correlation would probably have been negative in their case had they eliminated optionals also.

2. English and Vernacular ($+0.3925$).

Next in order comes the correlation between English and Vernacular (Table 2) which is of the same order as History and Vernacular. Here of course there is an absence of a common medium but the correlation should have been higher because both are language subjects. My idea is that the higher correlation obtained by Mahalanobis and Chakravarti is due to the fact that in the S. L. C. Examination, the study of English and Vernacular was a bit wider and since there were no text books prescribed, there was a better chance of widening one's interests also. Also, almost one complete paper in vernacular was based on the candidate's knowledge of English. On the other hand, now we have definite text books in English and Vernacular which help to close these subjects in water-tight compartments. Thus the correlation obtained should be considered rather *high* and this is due to the influence of other subjects. If other subjects be eliminated the correlation comes down to $+0.2129$ (Table 5)—History-Geography exerting the strongest influence bringing the coefficient down to $+0.2314$ (Table 3). One interesting point to be noted is that when mathematics and optionals are eliminated, the correlation becomes still less ($+0.1927$ Table 4). This shows that in the absence of the influence of mathematics and optionals, History exerts a negative influence on the correlation of English and Vernacular. This is as expected because it has already been found that the correlation between History and Vernacular is almost negligible in the absence of mathematics and optionals (Table 4).

3. English and Optional ($+0.3946$).

In this case also, the correlation is low (Table 2) and this can easily be explained. About $\frac{3}{4}$ of the boys offering optionals offered either Sanskrit or Persian or Drawing and the subjects

have no connection with English. There is neither a similarity of subject matter nor any common medium. Vernacular and Mathematics exert equal influence on the correlation, their elimination bringing the value down to $+0.2497$ and $+0.2490$ (Table 3). History-Geography exerts a stronger influence the elimination of which decreases the coefficient to $+0.0590$. This is due to the fact that History-Geography is highly correlated with English—a fact which will be discussed afterwards. Elimination of all the subjects makes the correlation negative as expected. (-0.0412 Table 3).

4. English and Mathematics ($+0.4021$).

There is a common medium of instruction though there is no similarity in the nature of the subject excepting that geometry requires exposition in English and this, for all practical purposes, may be neglected. This is why the correlation is neither high nor low. Table 3 shows that elimination of History-Geography brings the coefficient down to $+0.1015$ (Table 3). This probably is due to the high correlation between English and History-Geography and Mathematics and History-Geography. Vernaculars and optionals also exert some influence on the correlation, though to a much lower degree and the elimination of all the subjects makes the coefficient almost negligible ($+0.0403$ Table 5) showing that there is no intrinsic correlation between English and Mathematics. Similar results have been obtained by Mahalanobis and Chakravarti also.

5. Vernacular and Mathematics ($+0.4299$).

The figure obtained in this case is interesting in view of the fact that in the case of the S. L. C. Examination, the value obtained for vernacular and mathematics was the lowest in the list whereas in the present case the correlation is considerable. This shows that some factors have come into play which have increased the correlation. My contention is that the introduction of vernacular as the medium of instruction and the use of vernacular text books in mathematics in the middle sections have imperceptibly improved the correlation though there is no obvious similarity in the subject matters. Moreover, the introduction of compulsory elementary science in the middle sections and its teaching in vernacular is also likely to be reason of this high correlation. The effect of eliminating different subjects is less marked in this case, the final value being $+0.2105$ (Table 2)—optionals exerting a sufficiently strong influence (Table 3)—a result which supports my contention about the influence of science,

6. Optionals and Mathematics (+0.4895).

The figure is sufficiently high probably because of the similarity of the subject matter, as optionals include science and drawing (specially geometrical) which are highly related to mathematics. English has not any marked influence on the correlation as the coefficient decreases to +0.3929 by its elimination. History-Geography of course influences it considerably as it is highly correlated to both, optionals and mathematics. The residual correlation after eliminating all the subjects is +0.1740 (Table 5).

7. Vernaculars and Optionals (0.5019).

The coefficient +0.5019 is sufficiently high and was expected to be so because there is real similarity in the nature of the subjects as vernacular includes Hindi and Urdu and optionals include Sanskrit and Persian. History-Geography and Mathematics exert a sufficiently strong influence on the correlation which comes down to 0.3701 and 0.3897 (Table 3). When all the subjects are eliminated, the correlation becomes 0.3364, a reduction of 33% only, showing that vernacular is intrinsically correlated with optionals.

8. Mathematics and History-Geography (+0.5311)

The coefficient in this case is interesting in view of the fact that in the S.L.C. Examination, these two subjects gave the highest correlation (0.5561). In this case also the correlation is very high. The reason probably is that there is still the common medium of instruction though boys answer questions in Vernacular, which probably is responsible for the relatively lower correlation. The high correlation may also be ascribed to the fact that History requires the idea of time—and this is truly mathematical in nature. Geography is fast becoming mathematical in its treatment. English and optionals exert a sufficiently strong influence on the correlation as their elimination decreases it to 0.3404 and 0.3531 (Table 3) because both these subjects are highly correlated to Mathematic and History-Geography and elimination of all the subjects brings the value down to 0.2744 (Table 5).

9. History-Geography and Optional (+0.5667).

A surprisingly high correlation (0.5667) exists between these subjects though the absence of a common medium should prove it otherwise. The intrinsic correlation between the two is also sufficiently high because when all the other subjects are eliminated, the coefficient becomes +0.3543, a sufficiently high figure.

Whether it is accidental or not can only be found out if other data are examined. The analysis of marks of the S.L.C. Examination throws no light on this question as unfortunately optionals have been kept out of consideration in that study. There is some similarity in the nature of the subjects no doubt because optionals include Drawing and Science and both these subjects are necessary for the proper exposition of History and Geography. Further examination may prove interesting.

10. English and History-Geography (+0.6314).

These two subjects show the highest correlation. In the paper by Mahalanobis and Chakravarti the coefficient was shown to be next to History-Geography and Mathematics only. This high correlation is due to the common medium of instruction and also due to the text books which are all in English. Moreover, both the subjects require the power of expression. An additional factor which may also be responsible for increasing the correlation is the introduction of English History which was not a subject of study in the S.L.C. examination. The intrinsic correlation between the subjects is also very high because when all the subjects are eliminated, the correlation is only reduced to +0.5012 (Table 5) a figure which is higher than most of the total coefficients. In the reduction of the correlation mathematics and optionals exert the strongest influence, making the coefficients 0.5387 and 0.5381 (Table 3).

Concluding remarks.

The discussion of the results shows that the results obtained by the statistical analysis of a small unit compare favourably with those obtained by Mahalanobis and Chakravarti. Wherever there is difference, it can be explained also. An additional interest is afforded by the inclusion of optionals also in this study and it is found the optionals correlate highly with most of the subjects. History-Geography is also found to correlate highly with most of the subjects. The introduction of vernacular medium has not in any marked way, influenced the correlation among different subjects in the case of the Government High School, Fatehpur, probably because the medium of instruction continues to be English. It would be interesting to study the data from a school where the medium of instruction is also vernacular and the text books followed by most of the boys are also in vernacular.

In the end, I must thank my teacher, Rai Sahib Debnarain Mukherji, Principal, Agra Training College, under whose guidance the work was conducted.

THE PAINTER

BY

KATHLEEN SAINTFIELD.

What may we paint to-day, please?
Oh, what to-day, to-day?
Skies or seas or sunsets,
Or hills so far away?
I've all my colours here now,
The yellows, reds and blues.
What may we paint to-day?
Oh, please do quickly choose:
Cherries or Chinese lanterns,
Balloons or balls of wool,
Feathers, and fans, and flowers—
We've lots of these in school.
I can mix my paints so well,
The purple, green and grey—
For grapes or fields or mice,
Just what you like to say.
My water-jar I've filled, too,
My big fat brush is clean,
I have my painting rag—
Please, could I make some green?
What may we paint to-day?
What will you plan to do?
O teacher, would you say:
“ I'll leave the choice to you ”?

A NEW METHOD OF TEACHING ELEMENTARY MULTIPLICATION

BY

AMARENDRA NATH BANERJEE, M.Sc.,

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The method of multiplication which I am going to describe to you is really not a new one. It is the old "eye-and-ear method." Its application in the teaching or learning of elementary multiplication is however new.

As a teacher of Physics I have realised that students would grasp any principle much more easily when it could be demonstrated to them in a tangible form. This creates really a deep and lasting impression in their minds. The mere statement of a fact or a principle, without any visual demonstration of the same can hardly impress young minds about the truth underlying it. We college teachers generally come across boys who have passed the matriculation stage, students whose minds are fairly developed. Yet we are confronted very often with considerable difficulties when we want to put before them a new principle without any experimental support. Well can I imagine the extreme difficulties of my fellow teachers responsible for the education of young undeveloped minds. They have to initiate these young children in the secrets of knowledge and to instil in them a growing love and desire for the acquisition of knowledge. On them rests the responsibility of shaping and moulding these yet unformed and undeveloped minds into the proper standards.

But unfortunately very few of us are temperamentally fitted for this extremely responsible job. Very few of us have the tact and the patience to impress on these budding minds new ideas in a proper form. In this early stage, knowledge is generally brought before them in a form so dull and so dreary that instead of deriving the enjoyment of a fresh impetus in their lives, they get frightened out of their wits. They become rebellious to the teaching and perhaps to their teachers. So, no wonder, that when a boy is asked to read his books he considers it to be the maximum of punishment and takes the first opportunity to fly away from the school, knowing fully well that the consequence will be more harmful to him.

All these are the outcome of the defective method which we follow in teaching them. To my mind it appears that education would be as natural to them as their pastime and play, if it could be presented to them in a form suitable to them. It would strike their imagination, rouse their curiosity, and excite in them that eagerness which really forms the essential element of true education. Such an attempt has been made in other lands, and has come to us as the "Kinder-garten" (Child's garden) or the "Montessori" system.

Of the different elements that go to form the three "R's" of our boys, nothing appears to be more difficult than "arithmetic" and that because of the well known rules of multiplication. The boys now have got to toil through these multiplication tables and have got to memorise the apparently unrelated figures which go to form the products of the two numbers. They memorise, they stumble, but still they have got to learn them by heart as best they can. Can we now offer some help, some relief in getting over this difficult task? Is it possible to take away the dull and monotonous character of these tables by a process which enables them to visualise the products and acts as an aid to their memory through their eyes?

I have invented an electrical multiplying machine "Guna Pradip" which is an attempt to solve this difficulty. It is, in fact, not a "multiplication machine." There is a number of these machines available in the market which can work the addition, subtraction, multiplication and division of ten digits or more with the unfailing accuracy of mechanical perfection. But these are not meant for young ones. They are for busy grown-up people who have to work out these different processes in course of their business. They are all meant for people who know how to multiply but who would not trust their brain to work out for a considerable period of time these laborious processes.

For young minds nothing appears to be more pleasing than any moving phenomenon, anything that would suddenly spring up before their eyes. An illuminated dial, a luminous sign that happens suddenly to light up would appeal to them readily. I have, therefore, made an humble attempt to bring before their eyes the products of two numbers in the shape of a luminous sign correctly and suddenly.

I shall now give a short description and working of the machine. It consists essentially of two parts (i) a key-board, (ii) a screen. In the key-board there are twenty keys in two sets separated by a partition. The keys of each set are numbered as 1, 2, 3 . . . 10. Inside the screen there are bulbs electrically

connected with the key-board. As two keys, one from each set, are pressed simultaneously, the product of the two numbers in the keys flash out on the screen. The instrument works with a small dry cell which is conveniently placed behind the screen. This makes the instrument suitable for use even in the remotest countryside. One such cell is capable of working for a pretty long time, and it can be replaced by a fresh one at a moment's notice.

This simple device will help the children to visualise the product of the two numbers and will leave a more permanent impression on their minds. They would see that what their teacher says is correct. This will re-act on their eyes and enable them to learn this important fundamental rule. It will serve more like a pastime to them. They will certainly take it up as a game to enjoy, quite unlike the cruel device invented by their teachers, viz., that of learning by rote the tables of multiplication by constant repetition. Children will, I am sure, be happy to handle it, and the sudden appearance of the desired product in light will increase their curiosity, stimulate their interest and activate their minds. They would thus go through the most dull and difficult part of primary education while at play.

For demonstrating the results of multiplication in luminous figures to a large class a second type with a larger and separated screen has been made. The screen with figures showing the products of two digits such as, $11 \times 7 \dots 16 \times 8 \dots 20 \times 5$ or $11 \times 11 \dots 14 \times 17 \dots 19 \times 20$, etc., can be inserted in the place of the existing screen and the figures in the keys can also be changed correspondingly, thereby extending the range.

At present the figures are in English numerals, but screens and keys with numerals of vernaculars prevalent in different provinces of India can also be supplied.

THE AGENDA OF THE ANNUAL CONFERENCE OF THE INTERNATIONAL FEDERATION OF TEACHERS ASSOCIATION

Belgrad (Yugoslavia) August 10—15, 1936.

(By the Courtesy of the Secretaries of the Association.)

I. The State and the Teacher.

Duties, guaranties, legal status. Preliminary report.

This is first of all a question of determining the situation in which the teacher has been placed *versus* the State.

All varieties of such situation, from an almost total independence up to the closest subjection, can be found in the world. We waive *a priori* any discussion of the political conceptions which were prevalent in fixing the State's attitude towards the teaching staff. But it is evident that modifications of the administrative and legal position of teachers has often depended on the vicissitudes of political movements.

Anyhow, it is difficult to conceive education without a minimum of academic freedom and without security of tenure.

Away from academic freedom, education loses its noble character and is degraded to the level of a drill. Without security of tenure, the teacher misses the serenity of mind necessary for devoting himself entirely to his task.

However, the aim of this objective study is less to set up a rigid doctrine than to provide the various associations with a stock of information which they may use, as necessity arises, according to the particular conditions of their social position and of their country.

Questionnaire.

I. *Is the teacher a public servant?*—In the service of the State? in the service of the province or county? in the service of the city? since when? Please give a short description of the philosophical, political, historical or social causes which explain this situation of teachers *versus* the State.

II. *Appointment of teachers:*—(1) How are they appointed? (2) By what authorities? (3) By virtue of what regulations? (4) Duration of the appointment. Please consider successively

the case of: (a) probationary and auxiliary teachers; (b) fully appointed teachers; (c) headmasters. Please state your Association's criticisms and wishes, as well as projects, if any.

III. *Duties of teachers*:—(1) Do they sign a contract with the authorities? If they do so, please state the main clauses. (2) What are the teacher's duties towards: (a) school authorities (headmaster, inspector etc.)? (b) civil authorities—local (mayor, city councillor), National (Member of Parliament, county governor etc.)? (c) Denominational authorities? (d) Military authorities? What is your Association's point of view on this subject? Are there any bills in view? (3) Do you know of any special duties incumbent on the teaching staff? Or any particular interdictions?

IV. *Guaranties*:—What are the guaranties granted to teachers with reference to: (1) Appointment, (2) Promotions, (3) Security of tenure (Compulsory removal), (4) Superannuation. Please quote projects, if any.

V. *Legal Status*:—(1) Please quote the scale of disciplinary punishments which can be inflicted on teachers. (2) What authorities (Council, special courts or school management) are entitled to inflict punishments? Under what conditions? (3) Legal bodies for appeal or revision. (4) What civil, administrative or penal sentences involve dismissal? (5) Is a teacher entitled to superannuation if dismissed? Please quote your Association's point of view on the existing legal status and the desired reforms.

II. The State and the School.

The conception of national education, the conciliation to be achieved with the international spirit.

Preliminary report.

The problem of the State, placed before public opinion by the political turmoils of the post-war period, covers necessarily all fields of public life, the school included. Wherever the State structure is remodelled, the school status comes likewise under revision. In the countries where the State takes an authoritative character, where it aspires to achieve full unity of mind of the nation, it subjugates education to its totalitary purposes. "One State, one nation, one church, one school," proclaim the leaders of Hitler Germany. "The State must achieve full intellectual, political and economic unity" affirms on the other hand the

fascist jurist del Vecchio. Thus in all fields, education included, national particularities are reinforced and the States become fortresses impervious to the international spirit.

Amidst the general disorganisation of international goodwill and its promoters, it is our intention, in our capacity of educationists, to remain faithful to the mission we assigned ourselves in better times. The dramatic debate opened all over the world between the totalitarian formula of dictatorship and the free will of individuals and national collectivities is not circumscribed to politics. We endeavoured in the course of our last Conferences to persuade our friends from different countries that this issue is a question of human conscience, consequently of education. It is a conflict between war and peace; it is also a contestation between individual thought with resigns and the clear consciousness for everybody of the part to be taken in the affairs of humanity.

In the first place we have the intention of maintaining in national ideologies what is called by M. de Monzie "a minimum amount of humanity" and to retain for the spiritual and sentimental forces their capacity of liaison messengers between civilisations. Further we intend to make the idea of a rational, just and human organisation of the world familiar to the hearts and minds of men. Thus, even before our Conference has discussed these problems we take the liberty of sketching the general outline of future resolutions. We have no intention whatsoever to forestall these resolutions or to influence the debates. But we have often enough confronted in the course of these ten years of international life our ideas with those of our friends in all countries to be able to anticipate our starting point.

How far does the evolution of the idea of the State and its institutions allow a conciliation between the national sentiment and the international spirit? How far are schools and teachers allowed by public authorities of various countries to use this conciliation as a basis for the education of children and young people? Such are the problems submitted to our Conference and the national Associations which honour us with their cooperation.

It is not our business to debate on the conception of the State. But for the sake of clarity, it is necessary to sketch rapidly the ideas which are covered by the expression "the State" and to give an outline of the conceptions it has assumed in the minds of various nations.

That the idea of the State covered originally a principle common to all nations of Western Europe, is proved by the very

name which in the 16th Century they transmitted to each other (French: *l'Etat*; English: *the State*; German: *der Staat*; Italian: *lo Stato*; Spanish *el Estado*; Dutch: *Staat*; Swedish: *Staten* etc.)

That this notion has become an element of civilisation spread in the entire world, is another obvious fact (though reservations should be made with reference to certain nations refractory to the European idea of the State: "You European nations, who have produced this anomaly of the modern State, where men have become subjects" says Rabindranath Tagore).

Between the total repudiation of the idea of the State and the totalitary notion of dictatorship, a scala of intermediate arrangements can be found, the State starting from its original mission of defence and jurisdiction to cover gradually all fields of public life and identify itself with the *res publica*, claiming power for the benefit of public welfare. Depending on the fact of absorption by the State of local centres of life and its self-organisation on a centralist basis as in France, or of maintenance of local institutions as in England, where they were respected and utilized,—the result was an identification of State and nation or a subordination of the former to the latter.

In all cases, the structure of the State determines the organisation of education. To a centralised State belongs a centralized system of education. A regime of federalism or ample local autonomy leads in the educational field to the practice of self-government.

On confrontation of the educational systems, those who enjoy more liberty will better appreciate its value, will get a better understanding of the difficulties with which less favoured teachers have to cope and will be more inclined to give them fraternal support; those who have to struggle under more difficult conditions will draw from this fraternal comprehension the courage to hope and to strive.

Questionnaire.

I. *The State, the Public Authorities and the School*:—

(1) When and by what public act was the will to organize public education for the first time manifested in your country? What was the aim assigned to this education?

Examples: Czechoslovakia: Komensky and popular education.

France: The Revolution and national education.

(2) What were the stages passed before the present state was reached? (3) What is the text fixing the present status of

public education and what are its characteristic features? (a) Part taken in the administration of education: by the central authority (Board of Education)? by local authorities (education committees of the province, the county or the community)? by churches? by private bodies (parents' associations)? (b) Part left to the teacher's initiative: in the establishment of curricula; in their interpretation.

II. *The School and the National Feeling*:—(1) On what elements is the national idea based in your country? Importance assigned in the past and at present: (a) to the idea of natural or historical boundaries? (b) to the race idea? (c) to the language? (d) to the right of the people to dispose of themselves. (2) Does there exist an official text or a book written by a philosopher or a statement summing up in a synthetic and short formula this idea of the nation. (*Example*: The nation, as defined by Renan, is the expression of the will to live collectively?) (3) By what methods is the national feeling promoted in children? (a) Is the nation represented: as a categorical imperative? as a human achievement, subject to the control of reason? (b) What are the disciplines used to raise and promote the national feeling? reading lessons in school; history teaching; civic education. (c) Is civic education (training in citizenship) given in an impartial and rational way, or is it used as a propaganda in favour of the existing state of things?

III. *The School, the National Feeling and the International Spirit*:—(1) What official regulations have ordered the following topics to be included in the curricula: (a) History of benefactors of humanity; (b) History of world civilisation; (c) League of Nations teaching. (2) Are there books which explain for the sake of teachers or of the public an ideal of education achieving a conciliation of the national feeling with the international spirit. (3) What support or what resistance did teachers meet with in their efforts to promote the idea of international goodwill: (a) on the part of central authorities (Parliament and Government); (b) of school authorities; (c) of local authorities; of public opinion; of the press.

EDITORIAL NOTES

BY

F. G. PEARCE.

Village Uplift and the Federation.

Village Uplift is now all the vogue. Lots of people are talking about it. Congress, Government, and the missionaries are at work on it. It is almost a daily topic in the newspapers. That is all to the good. But, alas! it has not featured as prominently in the programmes of our All-India Educational Conferences as it ought to have done, and this goes to show, I fear, that as a body we are followers rather than leaders of the times. Well, if the All-India Federation of Educational Associations is not equal to the task of pointing out the way in new country, there is one service that it could very easily perform and that is to gather information about the various different lines of approach which are being pursued by the numerous agencies and individuals at work. Such information, in summary and classified form, could be presented as a report to the Primary and Rural Education Section of the Conference, and those actively interested in such work might be invited to give brief accounts of their own experiments, to supplement the report and bring it up to date, year by year.

For the information of those concerned I may add that valuable work along such lines is already being done by the Indian Village Welfare Association, and an excellent little bibliography of Village Welfare Activities has been compiled for that Association by Mr. C. F. Strickland; it has been published by the Oxford University Press, Bombay, at one rupee. If the Rural Education Section of the Conference would even keep in touch with the Village Welfare Association and other such bodies, and supplement the information obtained from them with information obtained from its own members, a useful purpose would be served. It has been rightly pointed out that village uplift work carried out on uniform lines throughout the country cannot but prove a failure in many places, since circumstances and conditions differ so widely. This makes it all the more imperative that information about the different methods of work should be readily available to those who are keen on taking up

this form of national service. In providing such information and keeping it up to date the Federation could play a really valuable role. It is to be hoped that signs of its being willing and anxious to undertake that role will be visible at its forthcoming Conference in Gwalior.

The Long-range View.

If the Federation has lost the opportunity of joining the ranks of the pioneers in the immediate task of Village Uplift, there is all the more reason why it should play its part in the main attack on that problem. For, whether you regard it as essential to plan the attack primarily on economic, or political, or hygienic, or cultural, or religious lines, you must admit that in the long run the success of each and all of these lines of approach depends upon an adequate preparation of the ground, through Education. It is true that for purposes of effecting immediate results, of making a preliminary breach in the blank wall of poverty, ignorance and prejudice, it may be desirable to employ external forces to clean streets, dig pits and wells, and start cottage industries. But everyone agrees that lasting results will never be achieved until the will and the power to achieve have been evoked from within the people themselves. That can be done *only* through Education, and it cannot be effectively done (even Russia has demonstrated) in less than a generation. Which, for many people in India, is a very good reason for shaking their heads solemnly and sadly, complaining of the wickedness of the times, and doing nothing at all.

Need the Federation figure prominently among the ranks of these? I hope not. I think not. It certainly need not, if we really try to fulfil our function as an educational body, and endeavour to look ahead, plan ahead, and, in our individual capacity, *act*.

Village Schoolmasters,—the Moga experiment.

Endeavouring to get a long-range view of the probable lines of advance of the Village Uplift movement, what are the likely requirements of the situation which we, as educationists, should endeavour to prepare for?

The first and most obvious requirement will be that of trained workers in the villages. By this I do not mean townsmen trained to go from village to village to supervise the activities started by experts, but I mean villagers who have learned to want better things and who have learned how to get them for

themselves and their fellows. For the preliminary attack it is often inevitable that townsmen or town-trained men should do the work, for the simple reason that there are hardly any others to do it, and even if there are, there are hardly any places to train them, yet, except in towns. But for long-range educational work, it seems to me that the right method of preparation has been hit upon by the Rev. A. F. Harper in his Training School for Village Teachers at Moga, Punjab. Here you have a rural Primary and Middle School of about 150 children which serves as a practising school for a Teachers' Training School consisting of thirty to thirty-five pupils, the course of training being for one year. One year may seem to be too brief a period for undergraduate training, but there are reasons for its proving sufficient at Moga, the chief of which is that many of the candidates for training come from the school itself, and the whole institution is residential. From this last fact the reader may surmise that the institution either does not cater for the ordinary village child, or that it is handsomely subsidized from mission funds. Neither is correct, and in the explanation lies the whole significance of the experiment. The entire institution is based upon a farm and cottage industries, in which the pupils actually earn their own keep. All is run on a business basis and proper accounts are kept. Each boy rents his garden plot from the school, raises vegetables and sugar-cane, and sells them to the school. In spare time they earn by small crafts, making shoes and clothes, baskets, rope, simple furniture and repairing of farm tools. As they reside on the premises and do not have to spend time in walking miles from their homes to the school, even with all this productive labour they still have time for book-learning, though as a matter of fact that term is rather a misnomer when applied to the education imparted at Moga, for even the three R's are there imparted much more through *doing* than through reading the deeds of others in books, and even in the teachers' training class much of the time is spent in practical work in neighbouring hamlets, rather than in theoretical studies. The result is that the men and women who go out from the Moga training-school know what the villager really needs and how to help him to help himself. Surely that is just what we want a village worker to know and to be able to do.

In my opinion this experiment is one which deserves the very closest attention of members of the Federation who are sincerely keen on Village Welfare work. It may take time to produce results, but they will be lasting ones if accomplished by such means.

The Village Headman—and his training.

The village schoolmaster, it is clear, if he be trained on such lines as are being followed at Moga, cannot but be a real fountain of inspiration and initiative towards rural uplift. Much more so, if in time his women-folk can be given a somewhat similar training on parallel lines. But, if the village schoolmaster holds one of the key-positions for the amelioration of village life, there is another key-position equally in need of capture by the forces of reconstruction. That is the position of the headman, patel, or whatever may be the title locally used. And in the attack upon this position also it is the long-range view that is going to help most. The position is as important as, if not even more important than, that of the schoolmaster, for the efforts of the latter, however capable he may be, will be in large measure frustrated unless the powers-that-be encourage, or at least do not actively oppose. How, then, is it possible to tackle this aspect of the problem?

The long-range attack is the effective one, here in particular, because very few headmen of the present generation are likely to be of much use except under active pressure from above (and it is to be feared that this applies to a considerable extent to the present generation of teachers, too, if one may say so without offence). How, then, to tackle the next generation? Where the office of headman is a hereditary one, as it is in many parts of India, the problem should not be difficult of solution if there is determination at the top to get it solved. It should be possible to establish residential hostels, in connexion with rural middle schools, and to make them very largely self-supporting by running them more or less on the Moga lines. Headmen should be obliged to send their eldest sons to such schools, as a condition of their succeeding to the post, and after the middle course has been completed, one or if necessary two years more should be devoted to a course in village administration, co-operative work, and agriculture. Where the office of headman is not a hereditary one, completion of a course at a school of this kind should, in course of time, be required as a condition of appointment to such a post.

With the two key-positions of the village in the hands of men trained in reconstruction aims and methods, the success of uplift work would largely be assured, and uplift activities might be expected to proceed without the necessity of a separate special organisation for their promotion, maintenance and control.

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Post-Box 52, CAWNPORE

The Indian Journal of Education

(Edited and Published by the All-India Federation of Educational Associations, Post-Box 52, Cawnpore)

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- (1) To act as an information Centre for all matters relating to Indian Education.
- (2) To encourage scientific investigation in educational sphere and to stimulate statistical enquiries or those relating to experimental projects.
- (3) To consolidate a public of those who, finding it impossible to be indifferent about the educational drift of India, believe that a concern for the health of educational criticism is immediately relevant to the political and economic urgencies of the time.
- (4) To provide a mouthpiece for Indian educational thinkers and researchers.
- (5) To strive for World Peace through Education.

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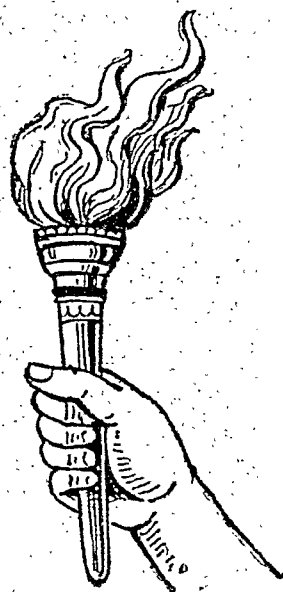
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VOL. I

NO. 7

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MANAGING EDITOR:
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JULY, 1936

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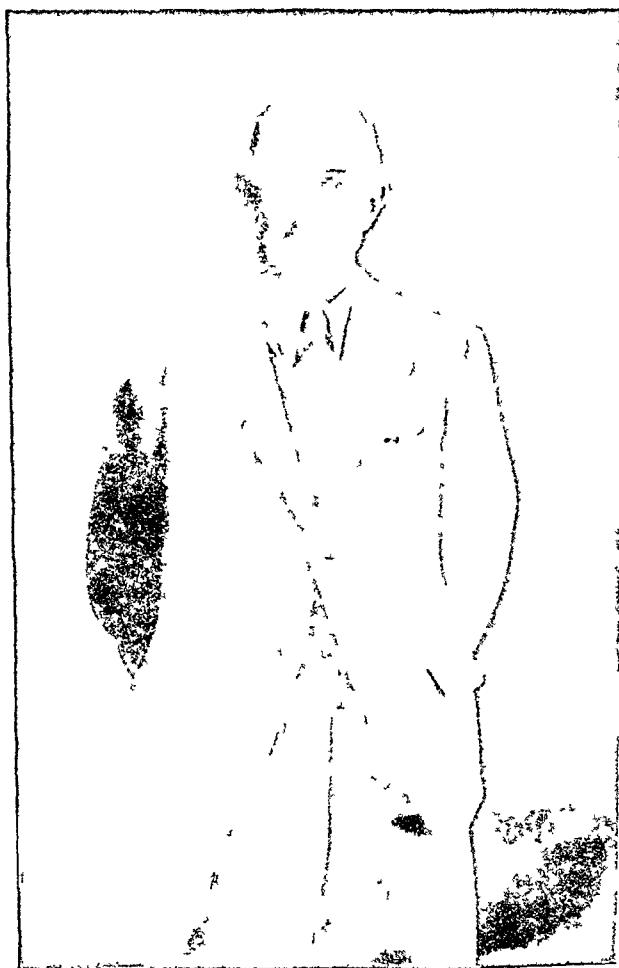
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Editors' Note

The Editors will be glad to receive contributions on all matters educational and particularly invite for publication (a) authoritative articles on educational topics; (b) short articles dealing with educational research; (c) accounts of educational experiments; (d) articles containing statistics and their application to the solution of educational problems; (e) short notices of original works; (f) news of interest to educational workers.

All contributions should reach the Managing Editor five weeks before the beginning of the month in which publication is desired and should be addressed to Post-Box 52, Cawnpore.



A C C HIRANI, MA, IES
Principal Government College, Ludhiana

Indian Journal of Education

Vol. I. {

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} No. 7

THE NEXT STEP IN INDIAN EDUCATION

BY

A. C. C. HERVYEJ, M.A., I.E.S.,

Principal, Government College, Ludhiana.

(1) "The Garden School, Wycombe Court, Lane End, Bucks. Boarding School for Girls (ages 4—18) in lovely part of Chiltern Hills. 61 acres 550 ft. above sea-level. Sound education on free individual lines, with scope for initiative and creative self-expression in all subjects, including arts, crafts, music, dancing, eurythmics. Aims at developing harmonised personalities with a wide outlook on life and a high ideal of social usefulness."

(2) "The School, Dartington Hall, Totnes, South Devon. A department for the training of teachers in Nursery School, Kindergarten and Junior School Methods. Instruction is offered in the theory and practice of progressive education. Special attention is paid to the contribution of the new schools of psychology and to the utilisation for education of rural life and industries. Preparation for Teachers' Certificate National Frosbel Union. Further particulars on application."

These two advertisements, read intelligently, contain in themselves not only a complete indictment of the old methods of education—so-called, it is not really education at all—still prevailing in India, but also the key to the methods which should take their place. It can hardly be disputed that the aims and methods indicated in these advertisements are those now generally accepted by modern educationists and progressive education authorities all over the world. "Education on free individual lines." The lines of our system of education in India are not free, nor has the system as yet begun to envisage the education

of the individual as an individual. "Scope for initiative and creative self-expression in all subjects, including arts, crafts, music, dancing, and eurythmics." Our system gives at present no scope for creative expression in any subjects, most of the subjects, especially suitable and necessary for this fundamental function of education find no place in the standard curriculum at all, or if they do, they are not used for this purpose, though this is indeed, or should be, their main purpose. We do not aim at developing harmonised cultured personalities. Most of our teachers would hardly understand what this means, others who could understand have not envisaged this as an aim of their profession. There may be some vague recognition that a wide outlook on life and a high ideal of social usefulness are desirable results of education. But the system as a system gives them only a very minor place. They can hardly be said, in practice, to be among the definite aims of our system. In actual practice our aim is to pass examinations, one of which, like hurdles in a hurdle race, is always looming large before us. These examinations have nothing to do with education in any real sense of the term. They are quite unrelated to life. They take no account whatever of the aims of education as set out in the Wycombe Court advertisement. Consequently our schools and colleges also take little or no account of the true aims of education, still less of the only possible methods of education in the real sense of the word. If they do so at all it is because here and there enlightened schools or teachers do their best, under crushing handicaps, to combat the system and to rise superior to it. The worst feature of our present system is that it is so rigid and restrictive, so wedded to uniformity, and so hostile, in fact if not in intention, to the growth or development of the new spirit in education, or new and better aims and methods from below or from within, as seriously to deter, rather than to encourage the educational reform which is so long and so dangerously overdue in India.

The Report of the Auxiliary Committee of the Indian Statutory Commission states that "Education is a subject in which great advances are constantly being made, and India cannot afford to remain behind other countries in educational progress. New and more efficient methods of teaching are constantly being introduced all over the world." One of the results of this line of thought has been the reconstitution of the Central Advisory Committees on Education. This is a step in the right direction if it facilitates, as it well can, the introduction and encouragement of the "great advances" and "new and

more efficient methods to which the quotation refers. What these are are clearly indicated even in these two brief advertisements. What is required now is (a) the official study and introduction of these methods, and of the spirit and philosophy underlying them, (b) encouragement and a free hand to progressive educationists whether in government or private institutions to introduce them into the schools with which they are connected, and (c) the training of teachers on these lines, since little or nothing can be expected of the great majority of teachers, or inspectors, trained on the old lines. Why are not educational officials, inspectors, teachers, and selected prospective teachers sent to Dartington Hall and to others of the hundreds of similar institutions now to be found in educationally advanced countries to study the new methods at first hand, with a view to their diffusion in India? Even in India, at a few places, such as Shantiniketan, mostly unconnected with the official educational system, the new methods are employed and can be studied by those who have a mind to do so. In the present state of public finances it might be pleaded that it is difficult for individual Provinces to do much in this direction. But much might be done by a continued effort through the Advisory Board, assisted perhaps by a grant from the Central as well as from Provincial Governments. A number of suitable men and women should be sent for a substantial period, not less than one year, preferably two years or even more. Carefully selected prospective teachers and inspectors would probably be glad to go at their own expenses, in some cases, if given reasonable assurance beforehand of suitable employment and prospects on their return. On their return, one of the main uses to which these men and women would be put would be the establishment of the All-India Institute of Educational Research, a kind of educational Pusa, which has been advocated for some time now by the All-India Federation of Educational Associations. Once a seed-bed of the new ideals and methods was established in India, placed under the charge of really outstanding and understanding personalities, and properly and sympathetically supported and used by the various Provincial and State Educational Authorities there would be no need to send men and women abroad in large numbers for training. But this seems essential at the beginning. It seems also evident that it is hardly likely to be achieved now except through the Advisory Board, and that it is the greatest and most helpful thing which the Advisory Board can now do, and for which, indeed, it seems expressly to have come now into existence. The Governments, both central and provincial, can

usually find money, even crores of rupees, for undertakings which hold out promise of material or direct returns. Why not for an undertaking which, if boldly undertaken and adequately carried through, is certain to give returns whether visible or not, many times more valuable than those of any canal or railway system. There is no time to be lost. A progressive scheme of political reform, designed to lead to self-government, must have a corresponding development of education along progressive lines, otherwise political changes are likely to lead only to intensification of existing divisions and to a reaction to some kind of absolute rule, and not to liberty or self-government in any real sense of the terms. Educational reform—not the mere extension of the prevailing type of education—is in fact an essential prerequisite of political reforms, otherwise we shall merely be trying to put new wine into old skins, with the inevitable result. In education it is no longer a question of searching for something unknown and untried. The basic principles of the new methods have been tried and proved by the test of actual experience and results in many parts of the world, and endorsed by all the world's leading educationists. Tinkering with the old and universally condemned system, sinking an additional well of the old type, with perhaps slight structural improvements, here and there, is no use. We want an entire new system of educational irrigation, which will revivify the mind and spirit of India, as the life-bringing canal waters revivify the fields and plains.

EDUCATION AND LEISURE: WHAT THE SCHOOL CAN DO

BY

DR. G. S. KRISHNAYYA, M.A. (Madras), M.A., Ph.D. (Columbia),
Teachers College, Kolhapur.

The Need.

A man is, to a very large extent, what he is during his leisure. When he is off guard, when he is able to do just what he pleases, when he is not being driven, watched, checked, he expresses his real self. For a true index to character one has to look at a man's likes and dislikes, his preferences and abhorrences which are naturally and spontaneously exhibited when he is monarch of his time, thought and action. In these days when youth the world over is demanding freedom for self-expression and self-realization, it is a matter for concern as to whether the self is the kind that is self-expressing, whether it deserves to be realized.

There is another aspect of leisure which is worth considering. What a man does during his leisure is of consequence to himself and to others. When he is on duty he is protected even against himself and is comparatively harmless so far as others are concerned. But when he is set free, let loose, that is the time fraught with possibilities of great good or much evil. If his tastes are low, if his likes are vulgar, if his interests are narrow, he is not likely to benefit himself or others by the use he makes of his leisure. On the other hand, if he has lofty ideals, noble passions and healthy avocations, he is certain to make a genuine contribution to the increase of human happiness.

Nor is that all. Just as there are hours of ease to relieve days of toil so there are years of leisure awaiting a life of labour, and if persons have to be prepared for the proper disposal of their free time, it is not less important that they should be adequately equipped for the satisfactory utilization of their retirement. Has it not been found that men who have had successful careers and held positions of responsibility often go to pieces within a year after being pensioned? They have no sustaining interests. Has it not been found that women whose children have been married and settled are often miserable?

They have no absorbing occupations. It was easier far and happier to be busy, pestered, overworked!

The problem then is to ensure that young people and old will make such use of their leisure that it will mean benefit to others, improvement for themselves and pleasure for all. "Time to stop and stare" is now within reach of almost everyone and more and more of it will be available in the days to come. What assurance have we that innocent pastimes and wholesome recreation will be sufficiently attractive to our young folk and to those of riper years as to give occupation for their idle hands and heads and 'deliver them from evil'? Can we be sure that our citizens will discern and feel excellence in art, music and literature? Have we the guarantee that they will not merely be aware of what constitutes the true, the good and the beautiful but that they will so value and desire it as to be willing to pay the price for it and put themselves out in pursuit of it? Should we not ensure that men and women will know how to escape from excesses of all kinds and the demoralizing vulgarities of civilized amusements to the grand and varied expressions of the human spirit?

The Responsibility of the School.

"Our children require to be trained to feel pleasure and pain at the right things," said Plato, who evidently understood that children will tend to repeat those actions which give them satisfaction and desist from those which cause them annoyance. It is, when children are in school, when they are forming their inclinations, that this ideal can be achieved. The school ought to see that things that are worth while are so presented that children will be attracted to them, that evil is so dealt with that aversion is the result. As the twig so the branch.

Besides, children are in school not merely during the impressionable period of their lives but when the restless, surging emotions of adolescence are seeking an outlet and the eager quest after new experience is demanding satisfaction. Surely something should be done to help the introvert, day-dreaming pupils in the 'teens to find their feet and reality. The school is under obligation to study the needs of its clientele and to strive to supply them. If the school can do nothing more than meet the problems of its pupils at a time when they are most pressing, it will have justified its existence. How can this be done better than by opening up before the adolescent new and attractive vistas and inviting him to appropriate some part of the glorious heritage that is his birthright.

Again, the school is concerned with the future as well as the present of the pupil. That means that if the citizens of to-morrow are to live full, rich, varied lives and know how to get the best out of their leisure, they must be taken in hand to-day. If age is to be rescued from being dry, drab and dreary and become the active, useful, radiant thing it should be, a host of 'interest pockets' or 'interest pegs' must be provided in youth. In no other way can interests that are absorbing, lasting and many-sided be cultivated. And as there is no other social institution willing or competent to discharge this obligation the school has to function here as elsewhere as the 'residuary legatee.'

There may be some who feel that storing up interests against hours of leisure or years of ease is not so important as storing up skills and information likely some day to bring in rupees, annas and pies. No doubt the school has to keep its feet firmly on the ground and concern itself with matters of bread and butter. (These days no butter!) But it must not be forgotten that children have a mental and a social appetite not less real than the physical one. "Man shall not live by bread alone," said the Master. The shortsighted utilitarian would feed the body and starve the soul. That is why we happen to have so many with ungirt loins and unlit lamps walking the world. If schooling is to result in the building up of the whole physical, moral, aesthetic and intellectual life of the pupils, it cannot fail to include stimulating in them the ability to utilize the common means of pleasurable relaxation and recreation. The school must prepare its pupils not merely for a livelihood but for life.

What the School can do.

In keeping with the arguments adduced in the previous pages there are two outstanding things which the school can do to teach its pupils the proper use of leisure: (1) set up standards and develop tastes which will help to determine the choice of proper forms of recreation and pleasure, and (2) develop habits and interests which will continue to give enjoyment and recreation in leisure hours in later life.

Within the curriculum: If the subjects of the ordinary curriculum were treated as they should be, pupils would not only learn them but love them. Once that stage has been reached there could be no complaint of indifference and inattention. More than that. What they have learnt to love they will love to learn, and these will linger with them through life. It must be the business of the teacher to see that children associate

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pleasure, and not pain, with the subjects which he teaches for quite often definite disgust and permanent repulsion have resulted from the teachers' handling of otherwise fascinating subjects. By their treatment teachers can either cure or create interest.

Courses in language and literature should introduce pupils to one of the most valuable and accessible means of recreation, and enable them to find pleasure and profit in its pursuit. A child can be compelled to read but when the compulsion is withdrawn he will cease to read. So, the task is not only teaching children how to read, but to read, to love to read. The appetite for reading grows with what it feeds on and so care must be taken to provide it with a good and plentiful diet. In the first place, we cannot expect children to love materials which are not worth loving. Secondly, children will not love that for which the teacher does not evidence genuine love and enthusiasm.

The social studies—history, geography, civics—should reveal lines of interest which can give life-long satisfaction. What more interesting reading can there be than the story of mankind, (history is “a succession of stories all true”) its loves and its hates, its manners and morals, its ideals and achievements. The story of the earth as man's home, the way he found it, what he has done with it, what it has done for him and the relation of cause and effect are not less thrilling. History and geography reduced to terms in which one experiences them in every-day life, and the management of one's own town and state and country cannot fail to interest children or adults, and civics is no other than that. Treated as they should be, there can be no more fascinating drama than that which the social studies present.

In addition to the intrinsic interest which these subjects possess, there are aids and agencies at the disposal of every resourceful teacher for making them vivid, gripping and enduring. What about the excursions to things and places which make the subjects real, dramas and pageants which kindle a living interest in matters of bygone days, pictures, still, moving and audible, which put life into “the dead past” and make children re-live these eventful times? With this amount of “vicarious experience,” the pupils are certain to imbibe a lasting interest, which means that, so far as those children are concerned, these subjects will have a future.

Courses in music, drawing and painting should develop permanent sources of enjoyment. Unfortunately they are handled by men least likely to pass on a passion for those arts. Contagious enthusiasm should be regarded a qualification no less indispensable than a first class certificate. Tastes and standards

are things which in a sense can be taught as well as caught. Unless refined tastes and high standards come to hold sway, the cheap and the commonplace will demand and obtain disastrously exclusive control.

The school library can be of invaluable assistance in encouraging the reading habit in the pupils, a habit which will, in youth and in age prove an unfailing source of infinite pleasure. It should lead to the love of ownership of books and magazines and to the use of facilities offered by public libraries. Since the aim of a school library is to foster love of reading, care has to be taken to see not only that the reading provided is good and plentiful but that the materials are made accessible in attractive form and at the appropriate time.

Extra-curricular: Outside the regular curriculum there are even greater opportunities for the development of recreational interests, for it is the recognition that the school should not only aim at producing citizens who shall have acquired certain skills, abilities and information but also somehow try to educate young people so that they may take into life with them varied interests, a broad outlook and a rich personality, that has brought into existence what are usually called 'extra-curricular activities.'¹ These activities furnish experiences which stimulate interest in avocations and then lead to the development of interesting and desirable hobbies. They also get pupils into the habit of using most of the ordinary means of recreation and enjoyment.

This approach is particularly successful because of, amongst other things, the play given to the social tendencies in group activity. The formation of appropriate voluntary clubs for the encouragement of the different interests and activities has often met with so much success that a number of progressive schools have shown an inclination to provide a place for them in the regular time-table. Another important factor which makes this line of attack so advantageous is the supervision of the teacher-adviser who knows the pupils as well as the educative possibilities of the particular activity. The remarkable thing is that interests and hobbies started under these auspices tend to become permanent possessions.

Extra-curricularly, literary interests can be created and developed by the preparation of school handbooks, magazines and newspapers. It is amazing the quantity and quality of

¹ For a practical and comprehensive treatment of this subject see the author's handbook of extra-curricular activities entitled 'Citizen-training in School' published by the Oxford University Press.

work that school children can do along this line with a little guidance and encouragement from their teachers. Literary and debating clubs are other means for fostering love of purposeful reading and reasoned conversation.

Music and drama clubs foster both talent and appreciation, for both capable producers and intelligent consumers are needed. Participation on the school stage enables one to get a great deal more out of subsequent attendance at the theatre. Also the occasional performance of an expert gives the amateur pupils an idea of the height yet before them and the way to attain them. If it is true that demand regulates supply, it means that people are given—on the stage and screen—what they desire. It is for this very reason that good taste and high standards must be made the permanent possession of our prospective citizens.

Out-door pursuits are always healthy and recreative and are not difficult to encourage. A school which arranges picnics, 'hikes' and excursions, long or short, educational or not, will stimulate in its pupils a love for the hills, the forests and the "starry firmament" and start them in the habit of going out on their own. Scouting is another invaluable means of encouraging interest in the great outdoors. As a corrective to the sedentary, stay-at-home habits deplorably common among the so-called educated classes—tired and retired alike—such an early campaign would be of inestimable advantage.

Games and sports might have been included along with out-door pursuits were they not so important in themselves. Their value on the physical side is recognised to be great enough to deserve their introduction in the high school and continuance in later life, but the social advantages are not less significant. The enjoyment of club life later depends to a large extent on the ability to partake wholeheartedly—not necessarily in an expert manner—in games of one kind or another and to mix unselfconsciously with persons in various stations of life. Since vigorous athletics will have to be abandoned as age advances, it is necessary that activities suited to different stages should be learnt and pursued. For a normal, satisfying life a regular regime of physical activity is indispensable and this should be begun while habits are being formed.

The value of interesting hobbies can never be exaggerated. They enable people to pass their spare time profitably and pleasantly and without injury to others. Especially valuable are they when working days are over and time seems to hang heavy on one's hand. Instead of feeling on retirement as though

the very foundations had been knocked off from underneath and collapsing, they might easily take to the avocations begun while in school. Resourceful teachers can get their pupils enthused over hobbies associated with several of the school subjects. Collecting stamps, butterflies, picture postcards, quaint stones and shells etc., will teach a number of useful things. Photography, gardening, carpentry, dairy-farming, poultry-raising represent other useful and absorbing pastimes, which might conceivably become more a vocation than an avocation for a re-tired couple. No man, no woman who took to these hobbies in youth has yet found age uninteresting or unprofitable or unsatisfying.

If man is a social animal—and woman more so—social activities should find a large place in the extra-curricular programme of a school. They would not only offset the academic and individualistic tendencies of our education but enable our young people to fit into social life later on. The group activities mentioned earlier definitely make for social efficiency. In addition, social parties and gatherings, well organised, should provide desirable training in conversation and entertainment which alone can transform feeding into fellowship, a biological necessity into a social phenomenon. These are all activities which might well occupy some part of one's leisure and therefore practice in actual social situations should not be withheld from school pupils, especially when, as it happens, they are most craving for society.

Another aspect of the social urge which has tremendous possibilities as a leisure-time occupation, is social service. In a country so obviously full of misery and misfortune, sorrow and suffering, he must be made of stone, who has not heard a soul-stirring S.O.S. And yet, how few answer it readily? Fewer yet know how to answer it effectively. Indiscriminate charity is often worse than useless. Therefore experience in scouting, guiding, first aid, 'big brother' and 'big sister' organizations, social service leagues, rural uplift, adult education and cooperation with hospitals and child welfare centres should be extremely valuable. As a small return for the health and strength they enjoy, young people should cultivate the habit of attending to those less fortunate than themselves. Also, when the hustle and bustle of the work-a-day world has slackened, when the maddening rush for gold has ceased, when man is again his own master, a life of unsparing service should be more the rule than the exception. As the shadows lengthen what better offering can creature make to Creator than selfless care for fellow creatures?

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CONCLUSION

These then are a sampling of the things which schools can do to equip the citizens of the future with the ability satisfactorily to use their leisure. Great responsibility rests on the school as the idealized epitome of the world to reflect the problems which the children face and will face increasingly, and to supply effective solutions therefor. The attitudes and achievements of men and women during their leisure hours and after retirement should be credited to their *alma mater* in the same way as their doings while under harness are at present proudly traced and claimed. The school cannot forget, as it has so often in the past that its function is not only "breadwinning" but also "soul-saving". It is for this reason that reformers insist that all education should be co-education——co-education of mind and body——and also that schools which concern themselves with preparing pupils exclusively for the sunlit hours and forget the moonlight period of man's existence are doing less than their duty.

I FOUND LOVELINESS TODAY

BY

CARLETON EVERETT KNOX.

I found loveliness today
Down along life's broad highway;
Saw its beauty in the trees,
Heard its whisper in the breeze;
Listed it in songbird's trill,
Then again in flowing rill.
Felt its warmth in glad sunshine,
Rhythm caught in swaying pine—
All along life's broad highway
I found loveliness today.

I found loveliness today
Down along life's broad highway;
Beauty saw in pastures green,
Next in clouds of silvery sheen,
Golden glow at break o' day,
Joy in children at their play;
Scented odor of wild rose,
Peace I found where violet grows—
All along life's broad highway
I found loveliness today.

ADULT EDUCATION

BY

K. P. CHATTOPADHYA, M.A.

*President, Adult Education Section
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Adult education in our country, unlike primary or secondary education, refers to two distinct problems. The major problem here is of education of adult illiterates. The problem of further education, of literate adults is what is meant elsewhere by adult education. Although it cannot be said to be a minor problem, it refers in India to the education of a numerically much smaller group.

The problem of educating adult illiterate persons is largely a problem of primary education. Further, it is a job that will never lead to success so long as the problem of primary education of children of school going age is not properly tackled. As you are all aware, the number of illiterate persons in India has been steadily on the increase during the century of so-called education expansion and progress in British India. Exactly a hundred years ago, a survey was made in some parts of Bengal and Bihar, of the number of literate persons in those areas. It was found that 5·8 per cent of the people were literate. The figures for literacy in Bombay, for 1842 were similar. It may be taken that the percentage noted was, on the average representative of Indian literacy at the time. If the population in 1836 be computed to be 220 millions, on the basis of subsequent returns of population, we get the following figures for literate and illiterate persons:—

POPULATION FIGURES ARE SHOWN IN NEAREST MILLIONS

Date	Total population	Literate population	Illiterate population
1836	220	13	207
1911	315	19	296
1921	319	23	296
1931	351	27	324

The number of literate persons has therefore increased in the course of a century by more than 50 per cent. The halt in this steady upward march of the number of illiterates in the decade 1911—21 is delusive; the constancy in number is to be explained by the temporary depopulation owing to the influenza epidemic of 1918. The problem, of keeping down and finally eliminating adult illiteracy therefore, largely reduces to the problem of spreading universal primary education; and of a kind which will not allow the children to lapse back into illiteracy.

The problem of educating those who are already adults and who are also illiterates, however remains. It is usual to suggest various modes of education for them—such as night schools, lantern lectures, use of posters, cinemas and also radio-broadcasting. Wide use of cinema shows and radio-broadcasting will have to wait until our country is in a prosperous condition—which state again depends largely on the general level of education and organisation. Lantern slides are cheap; and acetylene flares and mantle lamps easily carried about and managed. In Bengal, the social service league organised mainly by Dr. D. N. Moitra and the Working Men's Institution under the guidance of Mr. S. Niyogi have, for the last twenty years, done excellent work in the districts of the province, as well as the *bustees* of Calcutta through night schools and lantern lectures. Both the organisations possess a very admirable staff of lecturers; both have a collection of slides that convey to the spectators and through pictures, statistics and brief but pithy statements, knowledge on social, economic, and sanitary conditions and needs of the people in a way that attracts interest and attention. Most of you are familiar with similar work done in your own province by similar bodies on a smaller or larger scale. The Municipalities and District Boards in many places use posters and charts and hold exhibitions for education of adults in health; and industrial and agricultural matters. This is adult education undoubtedly but not by way of removal of adult illiteracy.

Of these various kinds of activities, each of which is of educative value, the work in night schools is directly aimed at removing illiteracy in the adult population. Those who have worked in any organisation of this kind, however know very well how difficult it is, to get a sufficient number of pupils, to form a unit comparable in size to that of children's schools. In Calcutta, for example the average daily attendance of adult pupils in night schools varies from 20 to 25, while the maximum of such attendance in any night school is 60. This figure, it may be noted, is reached only in one of the night schools, run by the

Corporation of Calcutta, in one of their carters' and sweepers' quarters. Actually very few of the aided night schools have an attendance beyond 40; and even this is not common. If adolescent boys beyond the age of 12, which is our limit of retention of names on rolls in primary schools, are included the Calcutta Working Men's Institute can point to one of their schools with an attendance of about 80 pupils. This is a solitary exception.

The reason for such small numbers and attendance is that to an adult unskilled workman, the economic value of a mere knowledge of the three R's is practically nil; or at least does not appear to him to be worth the trouble of putting in a couple of hour's work in the evening after his day's toil for at least two years. Such labour will be undertaken only if there is a strong incentive. You are probably aware of the fact that in the early days of spread of primary education, in North America, and Britain, one of strongest incentives to acquire a knowledge of reading among adults was the desire to read the Bible. In our country too, you will find that night schools in mosques are attended by adult Muhammedans, to acquire the ability to read the Quran only. Night schools proper, teaching according to recognised syllabuses, are much less popular and less attended, among Muhammedans in Calcutta. You will find it same elsewhere.

I have referred to a large and well attended night school run in Calcutta by the Working Men's Institute. Part of its success is due to the fact that industrial teaching is imparted in this school along with general education. The fact that a comparatively unskilled adolescent boy or an adult can learn a trade attracts a larger number of pupils here than elsewhere.

Some years ago I drew up a plan for night schools in Calcutta on these lines which has so far not been given effect to owing partly to financial stringency and partly owing to legal difficulties under the Municipal Act. The second difficulty has been removed recently by special legislation. If better financial conditions come, I may hope to have those schools started. My suggestions were that we should start schools which would teach crafts on improved lines to adult pupils along with general education. Owing to the linking of caste with profession, and the tendency of business of the same kind to be carried on in definite localities, we often find artisans of a kind grouped in definite quarters in cities. Advantage was sought to be taken of this fact by starting schools for such crafts in such localities. As examples, might be mentioned the recommendation to start a school for teaching wood work besides general education with the help of a master carpenter in the locality where the carpenters and

cabinet makers live and have their workshops; and another for working in leather, especially of cutting uppers for boots and shoes, in the quarter where there is a large cobbler population. Although nothing has been done, I have noted the facts as a suggestion that may prove helpful. For after all, very little has in fact been attempted for education of adult illiterates. At the present day we cannot expect the religious impulse to gain in strength to such an extent among our or any people that everybody will go in for education to be able to read their shastras. Nor do we consider it desirable. We have therefore to rely on other attractions. The economic side has already been referred to in some detail. There remains another possibility—the earning of political privileges through elementary education. In many of the provinces of India, the franchise has been recommended to be extended to those who have passed the Upper Primary Final Examination. If the syllabus of primary education is simplified all over India, and made into a four years' course for the children, as in the Punjab, the adults will be able to try to get this certificate, after a reasonable period of study in night schools. The activities of our National Congress, and latterly the counterpropaganda of the publicity departments of the Provincial Governments, have carried politics into even remote villages. It is very probable that the new franchise will, in these circumstances, supply a real incentive to adults, to educate themselves. It is unfortunate that in our province of Bengal the franchise has been put up much higher—at the passing of the Matriculation or an equivalent examination. If only literacy were made the condition of acquiring franchise everywhere, the incentive would have been greater, as the qualification would have been easier to acquire. The new reforms may not (and will not) bring anything like what we want in the political and economic field. But those who wish to take up the question of removing illiteracy among adults will find the extension of franchise definitely helpful to them.

Another thing that is likely to be helpful in rendering the adult education schools attractive is the provision for some indoor recreation, and if possible light games as well as occasional kirtans, bhajans and kathas. In Calcutta, the organisation for spread of education among backward communities in the slums, now known as the Harijan Utthan Samity, has found scouting and scout games, and still more the addition of scout bands with marching music as well as occasional bhajans and kirtans very helpful in this respect. Our experience in the night schools for carters and sweepers of the Calcutta Municipality is also similar. It has

also been noticed that the attendance improves if visitors of position come from time to time and meet them. Occasional social gatherings, where such adult and illiterate pupils can meet people better placed in life are in fact distinctly helpful in attracting pupils to such schools.

I have purposely enlarged on the difficulties of adult education, so that we may not underestimate it. I should add however that every country has had to face and overcome the same difficulties. I have referred to the small numbers that form a unit of a night school. We need not feel seriously discouraged if we recollect that many of the highly successful Danish Folk High Schools and Home Industry Association centres had for many years in the beginning an average number of 25 only on rolls.

The College students and even those of top forms of high schools in our country can do a good deal to help this movement. One of the oldest and most successful night schools for adult workmen in Calcutta is run almost wholly by unpaid voluntary workers from among college students. No one worker is expected to come daily for more than one hour; only one man sometimes gets an allowance to help him to meet his expense and in return does some extra work. But the office is looked after regularly by honorary workers. If the boys of the highest class of High Schools, and students of Colleges really feel for the adult illiterate people of their surrounding areas, a good deal of useful work can be done by them in this way. Work of a more intensive kind can be done by them during those portions of their fairly long vacations, when agricultural operations are at a standstill. Part of the vacation work may be usefully done among literate adults who have begun to stagnate: such vacation work has been found useful in China for removing illiteracy. This is about all that we can really do, in our present circumstances. But, as I have stated before, the problem in the long run, is of having enough and compulsory primary education for the children. It is only when the adult population is literate to a large extent, that benefit can be derived by them from propaganda or institutions meant to impart special knowledge for better economic organisation and development. It is only after this preliminary spade work has been well done, that we can hope to educate further the adults so as to improve the economic life of the nation and increase its general welfare. Denmark is the country in Europe in which adult education is considered to have reached a high degree of organisation in rural areas. We should do well to note the experience of the Danes in this respect.

“ The Danish peasantry at the beginning of the nineteenth century was an underclass . . without culture and technical skill; and was seldom able to rise above the level of a bare existence.” “ In the early nineteenth century, endeavours were made to start agricultural schools for the peasants, but they did not succeed as the pupils did not possess the universal education necessary.” Yet after the widespread introduction of primary education had made the ground ready, we find rapid progress in further education of adults. This work was done among a generation that had been through the primary schools. The first Folk High School in Denmark was started in 1852. The underlying idea of Bishop Grundhure, the originator of the movement, was to stimulate the mind and rouse the emotions of the adult young folk between the ages of 18 and 25. “ Life and learning ” according to him, “ were to go together in such a manner that life came first and learning was to follow.” In accordance to this principle “ the positive knowledge they (the Folk High Schools) give the students during one or two courses of five months is perhaps not extensive or of fundamental value ” “ but . . . the young people get mentally and emotionally roused.” “ The High Schools do not prepare pupils for a life of study. Their object is to educate pupils to return to their daily work with a deeper understanding of human life and its problem.”

How successful these and similar movements for further education of adults have achieved in Denmark will be apparent from the fact that “ in the course of a century this underclass (peasantry) has been changed into a well-to-do middle class, which politically and socially takes the lead among Danish people.”

“ Agricultural Societies for improvement of agriculture were started by philanthropic landowners and clergymen until about 1849. Similarly soon after 1800 savings banks for the support of Agriculture were started by a number of mob outside the peasant class. But these societies and banks soon came into the hands of the peasants. Just at this time the import of corn from North America and Argentine caused a sharp fall in the prices forcing the price of corn below that of the marginal corn production of the old European countries. Denmark was injured more than any other European country. Corn was their most important article of export.” “ The peasants understood the meaning of falling prices ” and “ Decided that corn should no longer be used for export; instead it should be used as fodder at home; it should be converted into butter and bacon. “ The promptitude and precision of this change is evidently due in large measure to the work of the Folk High Schools. The schools enabled a

sufficient number of young liberal-minded men to grasp the importance of the new course of events; and after a short period of training, to take up responsible positions as leaders of the new co-operative movement."

The above facts tell their own story. Contrast with this the condition of our peasantry. I shall take the case of Bengal as an example. Jute is a world monopoly. Foreigners and some Indians have made numerous large fortunes by acting as middlemen for sale of jute, and as producers of gunny. Time after time, the manipulations of these merchants and factory-owners has deprived the peasant of his dues. Time and again has he rushed into overproduction through hope of profit and been landed in debts through consequent low prices. Yet all the propaganda carried on by public-spirited men and the Congress have proved practically vain. They are still as helpless as before, and as prone to cultivate jute each one as he likes as before, without any reference to the possible market. Some improvements may come due to recent State Interference in this matter. But so long as the peasant remains as illiterate and ignorant as he is now, and therefore unable to organise his own co-operative society and selling agency, so long will he not get anything like his rightful share of the profits of this world commodity.

EDUCATIONAL TESTS IN INDIA

BY

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Retrospect.

Educational Tests and Experiments are of recent origin in this country. But these tests need no vindication because their value in Educational world have been adequately demonstrated. It was only about fifteen years ago that Binet-Simon scale was revised by its authors. This revision really gave an impetus to the activity and many modifications and adaptations have undergone since. People engaged in Education now know that Educational investigations and experiments have given Education the status of a science, and educational administrators are no longer apathetic towards making educational researches a recognised feature of educational administration.

The educational world must be grateful to Binet who made the connotation of "Intelligence" clear, and since then investigators and researchers have landed on firm ground for the measurement of what is called "Intelligence." Binet was followed by Thorndike and a host of his supporters in the analysis of Intelligence, but the significance was clarified by Spearman. He was, however, followed up by critics including Kelley who was not wholly unfriendly to his theory. But a comprehensive attack only two years ago was made on all aspects of Spearman's theory by Thurstone. Thurstone's researches have not only thrown more light on the problem of Intelligence, but have brought into the area of research the allied subjects inseparably connected with the measures of ability, *viz.*, achievement, temperament and character. Thurstone was followed by Lashley and he gave almost a new turn to the question—"emphasis from the structural to the dynamic conception of the mind." All this led to the generally accepted inference that Intelligence is an ability of some kind.

The next problem which engaged the attention of Educational Psychologists was the growth and variability of Intelligence, and the influence drawn from this investigation was utilised by Terman, *viz.*, that the period of five years from 10 to 14-years of

age is a period of great importance in the developmental stage of a child's life.

Educational Tests in India.

This in brief is a very rough outline of the development of what is called "Intelligence Tests"—the origin of mental testing. In European countries educationalists have taken full advantage of these tests, but in India very little headway has yet been made in this direction. In Europe, a very large and effective use has been made of these tests in discovering causes, predicting results and achievements, and suggesting preventive measures. They in Europe have developed a scientific trend of mind in looking for remedies and applying them to appropriate cases of deficiency or proficiency. Indeed the value and importance of these tests in discovering the various grades of mental deficiency can hardly be exaggerated. The increase in the incidence of mental deficiency, it must be admitted, lowers the efficiency of a nation and therefore calls for action to ensure the actual increase in the number of mental defectives, the health conditions in education and residence, and the lowering of the birth-rate of the defectives. Similarly, the treatment of superior intelligence measured by Intelligence Tests has to take note of the difference between the gifted and normal children. These latter tests reveal that gifted children are superior in many ways, *viz.*, physically, emotionally, temperamentally and that they are immune from nervous disabilities. Moreover, such children have wider interests in all spheres of activities. These points, strangely enough, though contrary to popular opinion have been established by educational tests and cannot be disputed. Thus these discoveries are not only important to a nation but are a real help to teachers in conducting class-room activities, in that these traits suggest differential or varied treatment to children according to their inherited gifts.

Intelligence Tests have been used in recent years also for the classification of scholars and prediction of scholastic success, but it must be remembered that correlation between innate intelligence and results of performance tests is always low. At the same time, with the advancement of Educational Psychology and Educational Tests, we can measure with reliability children's inherited gifts and their scholastic attainments. Intelligence or Mental Tests measure the mental development or mental age and the standardised Educational Tests measure the children's achievement or performance in different class subjects. Thus a comparison of these two tests gives a true idea of a child's standing

in respect of intelligence and performance. We can form a judgment on the child's achievement as warranted by his innate ability, and by comparing his results in different subjects, can discover his special abilities and disabilities or defects.

Teaching on a scientific basis can never be carried out without such data, and the reason why there is in this country so much wastage in Education and why there is disappointment in respect of certain promising children and youths is to be found in the absence of regular organization of institutions of research and investigations in the field of education.

We have now arrived at a point of educational development in this country when we are seriously to consider whether we ought not to organize a department at least in each Training College to test the gifted and the backward. If only this could be done then only the normals could get their fair treatment in the class. The large percentage of failures in the Universities and schools may largely be prevented if the teachers under training in Training Colleges, could, as a result of their training, be made capable of carrying out routine testing at least of this sort, *viz.*, testing merely the gifted and the backward. Experience of practical teachers, I am sure, will confirm my belief that the number of backward children preponderate at the lower end of the scale and that they compel the normals to sink or swim with them. So the sooner the backward children are recognised by some kind of tests in our educational system the better, in order that appropriate treatment may be thought out for them.

Educational Tests and the Problem of Unemployment.

Now let us turn to the problem of unemployment among the educated section of the middle-class people. This is mostly due to the crowding in the Universities by students of lower intellectual standard. We are grateful to the Government of India who have recently started investigations into this problem. Sir George Anderson has suggested certain changes in the system of education which go deep into the root of the whole thing for effecting reforms. I believe that in this matter Training Colleges can do their mite if facilities are offered by Government.

There are two aspects of this problem which is seriously social in its nature. It has been well said by Rusk that "Low Intelligence may suffer in silence, but high Intelligence will revolt, and countries may store up more trouble through having too much Intelligence which they cannot absorb than too little Intelligence." Attention of the people who are leaders of thought has fortunately been directed to and centred on the

crowding in the Universities. Thus it is high time that something should be done to diagnose fitness or innate ability for higher education to enable the country to train an *Intelligentsia*, for whom openings could be found. Along with this, also steps should be taken to sort out children according to their innate capacity and to guide them in their vocation in future. This problem of unemployment which is threatening to be a world-wide problem can only be faced in this way and teachers with training for testing children will be of real help to the country.

Connected and Subsidiary Problems.

There are many other problems connected with educational investigations, *viz.*, discovering sex differences, differences of children from rural and urban areas. Distinction between normals and backwards in mental ability is as important as the discovery of the mental defectives. These are vital problems in school education and no real improvement in our educational system can be effected without such investigations.

Schools and Scholastic Tests.

Schools are and ought to be as much interested in "Mental Tests" as in "Scholastic Tests." For example, in certain cases it is very difficult, almost impossible to measure ability in Arithmetic Problems without measuring, at the same time, the degree of General Intelligence. On the other hand, one can reliably measure ability in Arithmetic Processes, Spelling or Handwriting. Schools are more really concerned with measuring the products or effects of education, that is, the amount of change which the prevalent method in Education is able to effect in a given time. As measures of teaching results, such tests are a source of satisfaction to teachers and also awaken a sense of achievement to teachers and taught. Thus it may be pointed out that to measure reading ability in Language learning is of primary importance to teachers. For this purpose investigations on lines laid down by many distinguished investigators like Gray, Gates, Monroe, Courtis, and Pressey are well worth our attention. It will now appear that it is not necessary for me to dilate on the importance and utility of investigations in the field of education.

Outside the field of pure education are tests of Temperament and Character, and Tests in Aesthetics which include Musical Performance Tests, Artistic Knowledge and Interest Tests. These are of great value for the enrichment of society.

Then there are Vocational Tests. These tests though not highly reliable have led to the development of a considerable literature on the subject. This shows the interest taken by researchers in such matters, and an absorbing interest in Educational Investigations in general.

Thus the scope of educational investigations is so comprehensive and wide that they touch on all aspects of human interest and ability, and naturally demands the attention of the educationists which is commensurate with their value in all spheres of human activities, *viz.*, Intellectual, Social, Economic and not less predominantly, Political.

Methods and Investigations.

Methods are the measures of effectiveness of class teaching, and they are the results of educational investigations.

Educational methods are not thought out in the study nor are educational methods merely a divine gift of "nature and common sense." An educational method is the scientific discovery, less absolute than the discoveries of Physics or Chemistry, but not less laborious nor less difficult to make. The work starts with an analysis of what is wanted, it follows with the devising of a method of measuring it, it goes on with trials of various possible ways of achieving it and measurement of their comparative efficiencies, it ends with an adaptation of the selected method to the ordinary teacher in the ordinary school. I was connected with such an experiment about 10 years ago, at Dacca. The result of this experiment can be written on a halfsheet of notepaper and can be learnt by any ordinary teacher in five minutes. It cost Government nearly Rs. 1,800 and the work of three people for the best part of a year. But it is well worth it; it will save dozens of hours of thousands of children. If an improved method saves one minute a day in the secondary schools the net saving in a year is roughly 4 hours, hours of the children's lives, and hours of the teacher's work. What is the money value of an hour? Let us put it at an anna and our saving only in respect of children, (62,000) in the Primary classes of High Schools of Bengal, nine lakhs of Rupees per annum. This is the cost of building two Training Colleges.

It may be argued that the scope of, and facilities for, such investigations are beyond the province of Training Colleges, but it may be contended that the pioneer work in this respect was attempted in this country by Dr. West, Principal of the Teachers' Training College at Dacca, with the definite and promising results, about ten years ago in respect of the problem of

bilingualism. "The results of the experiments," says Dr. West, "point out in detail the path of final achievement, and it is believed that these principles can and will in the near future bring forth a method of learning silent reading in English which will appreciably reduce life's handicap for those children whose mother-tongue is one of the minor languages of the world."—Bureau of Education, India. Occasional Reports No. 13.

Thus it will appear that educational investigations are concerns as much of Government as of a nation, and that teachers trained in carrying out such investigations are the most powerful agents for ensuring national economy and efficiency provided their effort is encouraged through proper and adequate facilities offered by Government and people.

A STUDY OF EMERSON'S PHILOSOPHY OF EDUCATION

BY

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The purpose of this paper is to set forth Emerson's philosophy of education as may be drawn from comments in his Journals and from his published essays. This discussion is divided into three parts: the education of the child, or the elementary period; of the youth, or secondary period; and of the young man, or college period. In each period, I shall endeavor to show Emerson's educational aims for that level, his comments upon subject matter, texts, teaching procedure, and discipline.

Material for this paper is from the *Journals of Ralph Waldo Emerson*, edited by Edward Waldo Emerson and Waldo Emerson Forbes, ten volumes, and from the *Complete Writings of Ralph Waldo Emerson*, published by Wm. H. Wise and Co., New York.

Development of "Bias" or Individuality.

Emerson looks upon each child as a new creation, a distinct embodiment of the Divine; hence, the purpose of home and school must be the finding and nurturing of this spark of individuality or "bias" which sets each child apart from all others.

That tendency on the part of parents and teachers to impose their ideas and ideals upon children is condemned as a low self-love. "I suffer whenever I see that common sight of a parent or senior imposing his opinion and way of thinking on a young soul to which they are totally unfit. Cannot we let people be themselves and enjoy life in their own way. You are trying to make another *you*. One's enough."¹

This philosophy, however, by no means implies a *laissez faire* attitude upon the part of adults. "The two points in a boy's training are, to keep his *naturel* and train off all but that:—to keep his *naturel*, but stop off his uproar, fooling and horseplay:—keep his nature and arm it with knowledge in the very direction in which it points. Here are the two capital facts. Genius and Drill."²

¹ Complete Works of Emerson, p. 988.

² Ibid., p. 990.

Growth Through Play.

To the accomplishment of the first of these objectives, Emerson urges normal physical growth through healthful play. "Nature wishes to grow, and to grow unobserved; so she allures the child out of doors, and puts a hoop and a ball in his hands; then he forgets himself, and rushes into the conditions of growth, and comes in to his supper hungry, and off then to solid sleep, and grows every minute of the day and night like a cornfield."³

"To grow unobserved." This seems to be one of the cardinal principles of Emerson's scheme of education for the small child. Perhaps its roots are in his own boyhood, when the almost constant surveillance, at first of a Puritanical father, and later, of an extremely ambitious aunt, left little opportunity for normal development. Years later he wrote in his *Journal* the comment: "The advantage in education is always with those children who slip into life without being objects of notice."⁴ Again, thirteen years later, he makes this notation: "Education should leave the child obscure in his youth; protected so, as the green apple in its crude state."⁵

Habit Formation.

Education for Emerson's own three children was not, however, all romping unmolested in sunny meadows. He believed that childhood is the time for establishing certain habits which are to endure throughout life,—habits of accuracy, of appreciation for literature, of independent thought and moral integrity. So these habits are established, it makes little difference what facts are learned.

The Habit of Accuracy.

To the acquiring of accuracy Emerson believed that arithmetic and Latin grammar were most useful. He wrote: "It is better to teach a child arithmetic and Latin grammar than rhetoric or moral philosophy because they require exactitude of performance; it is certain that the lesson is mastered, and that the power of performance is worth more than the knowledge. He can learn anything important to him now that the power to learn is secured; as mechanics say, when one has learned the use of tools, it is easy to work at a new craft."⁶

Thus, by placing in his hands the tool of accuracy, Emerson would prepare the boy for success in any field of endeavor which further education or the demands of life itself might exact of him. "Give a boy accurate perceptions. Teach him the difference between the similar and the same. Make him call things by their right names. Pardon in him no blunder. Then he will give you solid satisfaction as long as he lives."⁷ No slovenliness of thought, with its boon companion, haziness of expression, is to be countenanced by the teacher of youth.

The Habit of Literary Appreciation.

A second habit which Emerson believed should be established in childhood is the habit of appreciative reading. As soon as the mechanics of acquiring information from the printed page have been mastered, he would place in the boy's hands "imaginative books,"—Scott, Shakespeare, Plutarch, and Homer, of whom he says, "A boy has no better friend or influence."⁸ He laments the fact that the boys of his own time, whom, in spite of a genuine fondness for them, he terms "young barbarians," "Knew nothing but football until they went to Latin School or to College, and at Cambridge first learned the names of the Laureates, and are not systematically drilled from childhood to letters."⁹

Just how far the school can go toward the development of the habit of literary appreciation Emerson does not say. Because he feels that this training cannot begin too early, much of the responsibility for the establishing of an attitude of enjoyment must rest upon the home. He makes this observation, which teachers of literature will agree is all too true: "I find the chance for appreciation is much increased by being the son of an appreciator, and that these boys who grow up are caught not only years too late, but two or three births too late."¹⁰

The Habit of Independent Thought.

A third habit which parents and school must inculcate is that of independent thought and its companion, moral integrity. Even a tiny child, he believed, may be taught to try to solve its own problems, to arrive at its own conclusions. This goes back to Emerson's fundamental belief in the Divinity of Man. He tells of a mother of his acquaintance who "refuses to tell her

⁷ Complete Works of Emerson, p. 991.

⁸ Journal 9 (1859), p. 252.

⁹ Journal 8 (1850), p. 129.

¹⁰ Complete Works of Emerson, p. 570.

children whether the act was right or wrong, but sends them away to find out what *the little voice* says, and at night they shall tell her."¹¹ Thus, she avoids imposing her ideals upon the minds of her children, and guides them in judging their own actions.

For a time Emerson was highly enthusiastic over Bronson Alcott's experimental school for young children, and frequently visited there. Here is the record of such a visit. "Yesterday I went to Mr. Alcott's school and heard a conversation upon the Gospel of St. John. I thought the experiment of engaging young children upon questions of taste and truth successful. A few striking things were said by them. I felt strongly as I watched the gradual dawn of thought upon the minds of all, that to truth there is no age or season. It appears or it does not appear, and when the child perceives it, he is no more a child; age, sex, are nothing; we are all alike before the Great Whole. Little Josiah Quincy, now six years, six months old, is a child having something wonderful and divine in him. He is a youthful prophet."¹²

Years later, Emerson came to consider Alcott a rather unbalanced reformer, although he seems never to have criticized this strange school and its purposes.

Summary of Objectives.

To foster the individual bent of each child; to establish in him lasting habits of accuracy of thought and speech; to develop in him an appreciation for good literature; to train him to independence of thought and moral honesty,—these are the objectives which Emerson holds forth to those who would educate children.

He recognizes the immensity of the task, and although he quoted others as commenting favorably upon the public schools, and he himself served for several years on the School Committee in Concord, his own children were educated at home and in private schools. Of the public school he writes: "Our modes of Education aim to expedite, to save labor, to do for masses what cannot be done for masses, what must be done reverently, one by one."¹³

This mass education, he believed, lowers standards of scholarship, and leads to harshness of discipline. "You have to work for large classes instead of individuals; you must lower your flag and reef your sails to wait for the dull sailors; you grow

¹¹ Journal 9 (1856), p. 41.

¹² Journal 4 (1836), p. 69.

¹³ Complete Works of Emerson, p. 933.

departmental, routinary, military almost in your discipline. What doth such a school to form a great and heroic character?"¹⁴

Discipline Through Mutual Respect.

Severity of discipline, Emerson believed, has no place in dealing with childhood. Not fear, but understanding and mutual respect must be the basis. He counsels the teacher to adopt the pace of Nature, reminding us that "Her secret is patience." He asks, "Can you not baffle the impatience of the child by your own tranquility?"¹⁵ Not punishment, not rewards, not fear, nor the competition for prizes is the key to such discipline, but the teacher's own tranquility. It is the all-powerful influence of example and sincerity. "Respect the child, respect him to the end, but also respect yourself. Be the companion of his thoughts, the friend of his friendship, the lover of his virtue,—but no kinsman to his sin. Let him find you so true to yourself that you are the irreconcilable hater of his vice, and the imperturbable slighter of his trifling."¹⁶ It is the same sincerity on the part of the teacher that holds the child to accuracy of thought, which makes him call things by their right names, that insists upon habits of industry and good order.

As harshness of discipline is often the result of mass education, so too is the mechanization of teaching procedure, which Emerson feels stands in the way of real education. "He (the teacher) cannot indulge his genius, he cannot delight in personal relations with young friends when his eye is always on the clock, and twenty classes are to be dealt with before the day is done."¹⁷

The Teacher-Pupil Relationship.

That warmly human relationship between teacher and pupil which exists in the best of teaching units, the family, Emerson believed should be as nearly as possible carried over into the schoolroom. He criticized the schools of his time as being cold, dull, and formal. It was indeed a revolutionary note which the quiet school committeeman from Concord sounded on September 27, 1861, in his magnificent Address at Yarmouth, in which he said: "I advise teachers to cherish mother wit. I assume that you will keep the grammar, reading, writing and arithmetic in order; it is easy, and of course you will. But smuggle in a little

¹⁴ Ibid., p. 992.

¹⁵ Ibid., p. 994.

¹⁶ Ibid., p. 990.

¹⁷ Ibid., p. 993.

contraband wit, fancy, imagination, thought. Set this law up, whatever becomes of the rules of the school: they must not whisper, much less talk; but, if one of the young people says a wise thing, greet it, and let all the children clap their hands. They shall have no books but school-books in the room; but if one has brought in a Plutarch or Shakespeare or Don Quixote or Goldsmith or any other book, and understands what he reads, put him at once at the head of the class. Nobody shall be disorderly or leave his seat without permission, but if a boy runs from his bench, or a girl, because fire falls, or to check some injury that a little dastard is inflicting behind his desk on some helpless sufferer, take away the medal from the head of the class and give it on the instant to the brave rescuer. If a child happens to show that he knows any fact about astronomy, or plants, or birds, or rocks, or history, that interests you and him, hush all the classes and encourage him to tell it so that all may hear. Then you have made your school-room like the world. Of course you will insist on modesty in children, and respect to their teachers, but if the boy stops you in your speech, cries out that you are wrong, and sets you right, hug him!"¹⁸

The Development of the Adolescent.

Those educational ideals, namely, the development of the individuality, the establishment of useful habits of thought and speech, which Emerson set as a goal for the training of the child, are equally applicable to the education of the youth. It is not easy to determine what further purposes he held for the adolescent, for he rarely makes a direct comment upon this period of life. He does, however, warn against forcing the boy into manhood, saying: "Don't let them eat their seed-corn, don't let them anticipate, antedate, and be young men before they have finished their boyhood. Let them have their fields and woods, and learn their secret, and the base and foot-ball, and wrestling, and brick-bats, and suck all the strength and courage that lies for them in these games; let them ride bareback and catch their horse in his pasture, let them hook and spear their fish, and shin a tall tree, shoot their partridge and trap the woodchuck before they begin to dress like collegians and sing in serenades, and make polite calls."¹⁹

In May, 1863, Emerson was invited by Secretary of War Stanton to serve on the Board of Visitors to the United States

¹⁸ Ibid., p. 995.

¹⁹ Journal 9 (1856), p. 41.

Military Academy at West Point. He seems to have been very favorably impressed with the good hours and the strict discipline under which the boys lived. Of their accomplishments he wrote: "I think it excellent that such tender youths should be made so mannerly and masterly in rough exercises of horse and gun and cannon and muster; so accurate in French, in mathematics, geology, and engineering; should learn to draw, to dance, and to swim."²⁰

Recommended Reading for the Youth.

On this visit Emerson records that he recommended the following books as suitable material for the reading of these young men:²¹ *Life of Hodgson*, *Life of Lord Herbert Cherbury*, *Tom Brown at Rugby*, *Tom Brown at Oxford*, *Correspondence between Napoleon and Joseph Bonaparte*, *Lives of the French Savants* by Argo, *George Herbert's Poems*, *Life of General Sir William Napier*.

Examinations.

He seems to have made just one recommendation after this visit concerning which he writes in his Journal: "I think the point of competitive examinations should be urged on the Congress, and that a severer preliminary test should be required for admission. The Academy should be relieved of teaching to spell and parse English. Thus, the course of study might be less superficial, or the application of science might be carried into detail in other schools."²² The tools of learning should have been mastered before this, and Emerson would bar the doors to all who had not mastered them.

Much as he admired certain phases of the training at the Academy, he asks the poignant question, "Is Civilization built on powder?—built on buttons?"

Summary of Educational Goals for Youth.

Obviously military training is not for every boy, but those principles which Emerson found admirable might well be applied in other types of schools. He urges as a goal that physical strength and resourcefulness which tend to make a youth self-reliant, be developed through simple living and sports that require

²⁰ Ibid. (1863), p. 512.

²¹ Ibid., p. 517.

²² Ibid., p. 514.

endurance, courage, and labor. He would couple with this intellectual training in languages, mathematics and science.

The Function of the University.

Emerson believed that the chief use of the university is the "cherishing of gifted persons." He wrote: "Be sure that scholars are secured, that the scholar is not quite left out; that the Imagination is cared for and cherished; that the money spirit does not turn him out; that Enthusiasm is not repressed."²³

Education: A Calling-Out.

Imagination and Enthusiasm! These are to be nurtured if we are to help the student to develop that individual "bias" without the development of which, Emerson says, there can be no lasting satisfaction. He criticised the universities of his time, saying that they conceived of education as a process of "driving in," whereas, real education must be, as the word itself implies, a "leading out." He wrote: "A young man is to be educated, and schools are built, and masters brought together, and a gymnasium erected, and scientific toys and monitorial systems and a college endowed with many professorships, and the apparatus is so enormous and unmanageable that *education or calling out of his faculties* is never accomplished. He graduates a dunce."²⁴ On the college level, as upon that of the elementary school it would seem that Emerson favored the smaller teaching unit.

Solitude an Educational Need.

Once, as a very young man, he confided to his Journal that he believed the best thing about University life was a "separate chamber and a fire," which he says parents will willingly provide for a boy at Cambridge but do not think necessary to give him at home.

More than forty years later he again wrote: "My idea of a home is a house in which each member of the family can on the instant kindle a fire in his or her own private roof."²⁵

Countless times he emphasizes the value of solitude to the scholar. It is in the privacy of one's own room, or in the chequered silences of the woods to which Emerson himself so often retreated, that one may find himself. Here, and not in crowded

²³ Journal 10 (1866), p. 136.

²⁴ Journal 3 (1834), p. 275.

²⁵ Journal 10 (1866), p. 170.

classrooms does the individual grow. Colleges must recognize this need for solitude.

Emerson once defined greatness or success as "the fulfillment of the natural tendency in each man."²⁶ To the attainment of this end, he said: "The first rule is to obey your native 'bias,' to accept the work for which you are inwardly formed,—the second rule is concentration, which doubles its force."²⁷

Labor an Educational Need.

Emerson believed that the college should be exacting in its demands upon the scholar; that he needs the discipline of hard work. "No way has been found for making heroism easy, even for the scholar. Labor, iron labor are for him."²⁸ The rewards of this labor are not necessarily knowledge, but habits, which Emerson ever believed to be far more valuable than mere information. He wrote: "He who has sharpened his faculties by long and painful thought enters in a mighty sphere, but upon an accustomed task. Education has armed him in the panoply of thought. He moves gracefully like one at home in an eternal country. But his companion, whose habits have not been similar, though he recognizes some bright forms in the scenery. . . must walk among its wonders in stupid amazement. . . . Considered with relation to our whole existence the habits of thought are better than knowledge."²⁹

The highest end of Education is not knowledge but Virtue, taught Emerson. "*Knowledge*," he wrote, "is the straight Line; *Wisdom* is the power of the straight Line, or the Square; *Virtue* is the power of the Square, or the Solid."³⁰ It is only through sincere effort on the part of the individual that this power may be attained. Without labor the bright student may attain a degree of knowledge, and to some extent, wisdom. "But the last lesson is still unlearned; the moral power lay in the continuance, in fortitude, in working against pleasure, to the excellent and conquering all opposition. He has knowledge, he has wisdom, but he has missed Virtue, which he only acquires who endures routine, and sweat, and postponement of fancy to the achievement of a worthy end."³¹

²⁶ Complete Works of Emerson, p. 818.

²⁷ Ibid., p. 621.

²⁸ Journal 1 (1824), p. 313.

²⁹ Journal 7 (1845), p. 114.

³⁰ Ibid., p. 115.

³¹ Ibid., p. 115.

College Examinations.

One can easily understand, therefore, why, ten years later, in commenting upon the colleges of his time and their increasing laxness in scholastic standards, Emerson said: "Colleges should have a real examination or test before granting diplomas, as by competition for valuable prizes; so having rivals or enemies, adjudicate the crown, and this will come to be suggested or enforced by the neighborhood of the Racecourse at Cambridge, by the pugilistic prize fights, by the regattas and cattle shows. A fair mode is to propose problems, chemical, mathematical, and botanical never yet solved, and rewards for the solution. The custom of defending a thesis against all comers was a fair test, *when there were comers*."³²

The Consciousness of Unity a Reward of Study.

One of the most delightful phenomena of learning is the growing consciousness of the relationships between facts and ideas which at first seemed poles apart. "To the young mind everything is individual, stands by itself. By and by, it finds how to join two things and see in them one nature; then three, then three thousand, and so, tyrannized over by its own unifying instinct, it goes on tying things together, diminishing anomalies, discovering roots running underground, whereby contrary and remote things cohere and flower out from one root."³³ So too, "A good scholar will find Aristophanes and Hafiz and Rabelais full of American History."³⁴ So too, Emerson believed that the mind grows into a consciousness of its unity with all other minds, with Nature, and with God. Herein lies the basis for that self-reliance which he taught is the highest attribute of Man.

Summary of Educational Aims on the College Level.

To know oneself, to trust oneself, to be aware of one's kinship with all the World,—these are the final aims of education as Emerson saw them. What then, is the function of the college in the attaining of these ends? What part shall books and instructors play in achieving these high goals?

The Function of Books.

Probably the most quoted, and at the same time, least understood line from Emerson's writings is this: "Books are for the

³² Journal 8 (1855), p. 583.

³³ Complete Works of Emerson, p. 24.

³⁴ Journal 7 (1847), p. 257.

scholar's idle times."³⁵ Years later, in an address at the opening of the Free Public Library in Concord, after stressing the value of books, he added: "In saying these things for books, I do not for a moment forget that they are secondary, mere means, and only used in off hours, only in the pause, and as it were, the sleep or passive state of the mind. The intellect reserves all its rights. Instantly, when the mind itself awakes, all books, all past acts are forgotten, huddled aside as impertinent in the august presence of the creator."³⁶

Books, then, are for inspiration; they are not to be slavishly memorized, or to be regarded as a final word on any subject. For the young reader, Emerson recommended Scott, Shakespeare, Plutarch and Homer. A glance at his Journals reveals his own personal enthusiasm for Plato, Kant, Socrates, Aristotle, Chaucer, Schopenhauer, Bacon, and a host of others, among whom are many Orientals whose philosophies especially delighted him. Yet, I find no indication that he ever listed any book as being more valuable than another.

Dante, he considered especially admirable as a model of literary technique, and he once wrote: "If I were a Professor of Rhetoric,—teacher of the art of writing well to young men,—I should use Dante as my text."³⁷

The Curriculum.

I find no occasion upon which Emerson designed a curriculum or planned a course of study. In 1864 he wrote at length in his Journal a criticism of the curriculum at Harvard, where every student was evidently required to study mathematics. He feels that an undue amount of emphasis is placed on this branch of learning, to the detriment of the majority of the students both physically and mentally. He adds: "Language, Rhetoric, Logic, Ethics, Intellectual Philosophy, Poetry, Natural History, Civil History, Political Economy, Technology, Chemistry, Agriculture, Literary History, as the genius of Homer, Dante, Shakespeare, and Goethe; Music and Drawing even, all these may rightly enter into the curriculum, as well as Mathematics. But it were a hurt to the University if any one of these should absorb a disproportionate share of time."³⁸

³⁵ Complete Works of Emerson, p. 28.

³⁶ Ibid., p. 1234.

³⁷ Journal 8 (1849), p. 33.

³⁸ Journal 10 (1864), p. 38.

Electives.

At the time he wrote this, Emerson had no connection with the university. Five years later, as a member of the Committee on Merit and Discipline, he laments the fact that some of the young men choose as electives "botany or some other study which cost no thought and little attention, and it does not seem quite fair that for such idle reading they should receive equally high marks with those who elected trigonometry or metaphysics or advanced Greek."³⁹

The Place of the Instructor.

As the chief function of books is to inspire, so too, is inspiration the purpose of the teacher. If he is to inspire, he must first have the power to command attention; he must be all that the pupil is not. "The teacher should be the complement of the pupil; now, for the most part they are Earth's diameters apart. A college professor should be elected by setting all the candidates loose on a miscellaneous gang of young men taken at large from the street. He who could get the ear of these youths after a certain number of hours, or of the greatest number of these youths, should be the professor."⁴⁰

In a large sense, each individual must, at this point in his education, teach himself. As he told the graduating class at Harvard Divinity School in 1838, "Truly speaking, it is not instruction but provocation that I can receive from another soul."⁴¹ I believe that Emerson embodied the whole duty of the college professor, and perhaps the highest function of all teachers in these words: "Be an opener of doors for such as come after thee."⁴²

Summary.

In conclusion, Emerson believed that the school should aim, not at the production of a mass of like-minded individuals bearing the indelible stamp of any institution, no matter how fine; but that it should aim to preserve the individuality of each pupil, teaching him to understand himself, to respect himself, and to trust himself in the face of all opposition. The little child must meet with understanding and respect on the part of parents and teachers; he must be allowed to develop naturally,

³⁹ Journal 10 (1869), p. 289.

⁴⁰ Journal 7 (1846), p. 224.

⁴¹ Complete Works of Emerson, p. 39.

⁴² Journal 6 (1844), p. 525.

but at the same time, he must find himself held firmly to accuracy of thought and speech. The transition from childhood to manhood must be unforced. Simple living, out-of-door sports, and good books are for the youth. The responsibility of the college lies in the discipline and in the inspiration of young people that each may achieve the highest development of which he is capable.

—*Education*, BOSTON.

INQUIRY ON RURAL EDUCATION

(QUESTIONNAIRE SENT TO THE MINISTRIES OF PUBLIC INSTRUCTION BY THE INTERNATIONAL BUREAU OF EDUCATION, GENEVA.)

1. In your country, are the rural schools governed by special legislation or organised differently from town schools?

If the legislation or the organisation are different, kindly point out the differences in replying to the following questions.

School Organisation.

2. As regards rural elementary (or primary) schools, does the law make provision for classes of all grades: infant, lower (or junior) elementary, higher (or senior) elementary, continuation, and what are the factors (number of inhabitants, etc.) which are taken into consideration? Can a single teacher be responsible for several or for all grades (one-room schools)?

3. In what way are the *elementary* rural schools different from the town schools in respect of: (a) length of compulsory schooling; age of entrance and of leaving; (b) length of the school year; (c) number of school hours per week, and time-table; (d) distribution of holidays and vacation; (e) number of pupils allotted to one teacher; (f) minimum number of pupils necessary for the establishment of an elementary school; (g) mixed classes for boys and girls at all stages, etc.

4. Do there exist: (a) rural *secondary* schools? (b) rural *vocational* schools? If so, how do they differ from similar schools in towns?

Curricula and Teaching-Methods.

5. In what ways are the rural schools different from town schools in respect to their *curricula*?

Are the curricula: (a) identical with those of town schools? (b) similar, except inasmuch as they give an agricultural bias to certain subjects, such as elementary science? (c) similar as regards the principal subjects, but with the addition of special subjects, such as horticulture, agriculture, dairying, etc.? (d) entirely different?

(Kindly send samples of curricula with your reply.)

6. Do the *methods* used in rural schools differ from those used in town schools?

Teaching Staff.

7. In what ways do rural schools differ from town schools in matters pertaining to the teaching staff: (a) institutions where the teachers are trained; (b) length of studies; (c) programme of studies; (d) appointment, salary, allowances, lodging, accommodation, etc.; (e) facilities of transfer from one rural school to another or from country to town and vice-versa.

Movement in Favour of Rural Education.

8. Does there exist a special movement in favour of rural education? What is its chief aim (to raise the level of rural life and of the culture of country people, to stop the movement away from the country into the towns, to put an end to illiteracy, to improve the economic prospects of the region, etc.)?

9. Are there facilities for children living at a considerable distance from any school: (a) peripatetic school trains, itinerant teachers, correspondence classes, etc.; (b) free transportation, etc.; (c) school lunches, boarding-schools or hostels, etc.; (d) scholarships, various allowances or grants.

10. Is there a tendency towards a concentration of rural schools, leading for example to the establishing of central schools (junior elementary, senior elementary, secondary, vocational) serving a whole district, with premises suitable for a community centre, playing-fields, land for agricultural experiments, etc.?

11. Are there post-school or extra-curricular activities peculiar to the country side, such as special rural broadcasts, Young Farmers Clubs, School Co-operative Societies, Women's Rural Institutes, theatrical or cinematographic touring companies, cultural or educational missions, popular health centres, Folk High Schools, etc.? Are such activities wholly supported, or subsidised, by the State, local authorities, private people, private organisations?

12. Are there any other interesting initiatives worth mentioning in respect to rural education?

A STUDY IN SYNTHESIS—A REVIEW

BY

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A Study In Synthesis by James H. Cousins. Published by Ganesh & Co., 39, Thambu Chetty Street, Madras.

Plato pleaded for the cultivation of a synoptic vision; Matthew Arnold demanded that we should see life steadily and see it whole. But man has generally turned a deaf ear to their message. We see life only in 'bits' and naturally we take a very narrow and short-sighted view of it. The belligerent politician thinks that man is only so much food for gun-powder; the economist believes that he is meant only for 'getting and spending'; the scientist avers that his perfection lies in observation, analysis, classification and formulation of laws, brushes aside religion as mere superstition, and mysticism as nervous disorder or a pathological condition of the mind; even the average teacher considers him to be only an intellectual being whose mind has to be stuffed with information, and has no room for arts or aspirational activities in his scheme of education. No wonder then that we see so much disintegration, so much chaos in life. The world sadly needs a thinker who could unerringly point to man's place in the cosmos and his glorious destiny.

Dr. Cousins has undertaken this task, and I have no hesitation in saying that he has succeeded admirably well. He says "My study is not of an attainable synthesis through fitting things together, but of an inescapable synthesis of fundamental human capacities through which the life of the universe may be liberated into expression that will naturally become synthetically orderly instead of analytically chaotic as it is at present."

He gives the octavo of human capacity—intuition, subdivided into illumination and inspiration, cognition into philosophy and science, emotion into religion and art, and action into organisation and execution, and throughout the book pleads for a harmonious development of all these. He has made a brilliant attempt to give a synthesis of religion, arts, philosophy, science and civilisation and maintains that the much needed synthesis of these can be achieved only through proper education. His chapter on the synthesis of words is extremely interesting and original.

Dr. Cousins believes—and very rightly—that it is only through the re-organisation and re-orientation of education that the world can be saved. Says he “The most effective time for offering humanity the opportunity and means for beginning the development of its octave of capacity to its fullest possibility is childhood.”

We ought to educate the complete student—the student as feeler, the student as thinker, the student as doer. At present the student is only intellectually fed, but spiritually starved. Dr. Cousins maintains that the student is not only a thinker but also a feeler. We should, therefore, inculcate in him a sense of aspiration and reverence, teach him the lives of great spiritual heroes and place before him great spiritual ideals. “There is needed the world over a mutual, unreserved, regular and complete focussing of the aspiration of teachers and students towards the idealism involved in the recognition of their co-partnership in the Life of the Universe.” For the emotional health of the student, it is also absolutely necessary that he should receive a training in arts. “Art-creation of itself has a natural pull towards the higher nature, for its source is in the spiritual centre of man’s being. It is the invitation homewards from the inner to the outer.” “It directs the imagination of the normal beholder from the gross towards the fine, from the body towards the bodiless spirit, from the material form to the indwelling life.”

The student as thinker must receive an education in the rudiments of science and philosophy, and since he is also a doer, there should be sufficient provision for games, scouting, *prāṇāyām*, in a word, for the development of a sound body. Dr. Cousins puts the whole function of education in a nut-shell—the full development of the complete powers of the individual, and the setting of the developed individual in intelligent and creative relationship with his and her environment.

Both the author and the publisher deserve congratulation for bringing out such a first rate volume. The trouble of the world is due to the over-development of the lower capacities of human nature. Dr. Cousins maintains that the remedy for the ills of the world lies in the true culture of man. There can be no water-tight compartments in life. An action in one direction has a reaction in another. We see only ‘the broken arc,’ Dr. Cousins points to ‘the perfect round.’

For its broad outlook, catholic spirit, and sane counsel the treatise stands almost unequalled. It has a very clear and elegant style and is essentially a book for statesmen and teachers—the acknowledged leaders of man.

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- (1) To act as an information Centre for all matters relating to Indian Education.
- (2) To encourage scientific investigation in educational sphere and to stimulate statistical enquiries or those relating to experimental projects.
- (3) To consolidate a public of those who, finding it impossible to be indifferent about the educational drift of India, believe that a concern for the health of educational criticism is immediately relevant to the political and economic urgencies of the time.
- (4) To provide a mouthpiece for Indian educational thinkers and researchers.
- (5) To strive for World Peace through Education.

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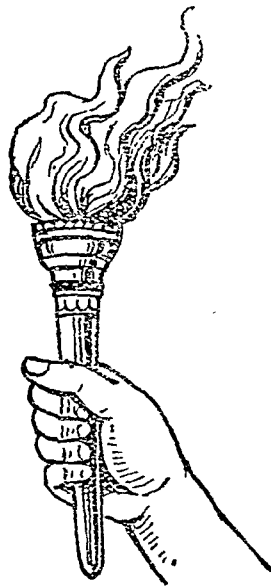
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MANAGING EDITOR:
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APRIL, 1936

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PRICE ANNAS EIGHT

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The Editors will be glad to receive contributions on all matters educational and particularly invite for publication (a) authoritative articles on educational topics ; (b) short articles dealing with educational research ; (c) accounts of educational experiments ; (d) articles containing statistics and their application to the solution of educational problems ; (e) short notices of original works ; (f) news of interest to educational workers.

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Dr. Rabindra Nath Tagore

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IDEALS OF EDUCATION

BY

DR. RABINDRA NATH TAGORE.

(The Summary of an Address delivered in connection with the Bengal Education Week, at Calcutta, on the 8th February, 1936).

I knew of a person, not an architect, who offered to build a house for another, equally innocent of architecture. The materials procured were of the best, the workmanship was unexceptionable, but after the building was finished it was discovered that no staircase had been provided in the plan. In the educational structure of our country, the provision of a stairway between its lower and upper floors has similarly been left out of its plan from the very beginning. Thus the lower storey has borne the burden of the upper storey over-head but has not been able to use it. The occupants of the former have to pay for the latter, but cannot avail of it.

I have written before of this grave omission in our educational scheme. I am, however, not aware that what I then wrote led to any perturbation in the mind of any reader. The reason was that our countrymen had become accustomed to admiring the towering educational edifice, but not to concern themselves with the means of inter-communication between its lower and upper floors. So my effort was applauded, but not taken to heart. Still there is no harm in trying again to press my point, for, until it actually happens there is no knowing how and when a favourable wind may begin to blow in the atmosphere of our country's mentality.

Education, a Living, not a Mechanical Process.

That education is a living, not a mechanical process, is a truth as freely admitted as it is persistently ignored. Questions of method and equipment may await opportunities, but the bringing to life must come first. Life is characterized by incessant efforts to go on living. A society with strong vitality constantly exerts its natural will to live mainly in the two-fold pursuit of livelihood and learning, of food and knowledge. It is but a sign of partial paralysis, a disease peculiar to barbarism, if the upper classes alone are properly fed and taught and flourish, while the society as a whole remains indifferent to the lower classes being half or wholly starved.

Death Mocks at Life.

In the western world the scarcity of the means of livelihood has become acute. The anxiety and generosity displayed on that account, both by the leading men and Governments of the countries, is a thing quite unknown in the case of the patiently suffered hunger of our people here. But few of our countrymen get two meals a day, and the rest, laying the responsibility for their emptiness on an unkind fate, do not for long avoid slipping off the narrow path of their livelihood into death. The resulting lifelessness is not to be measured only by the death rate. Had there been any way of measuring misery, despondency, incapacity for exertion, liability to disease, we should have seen how death mocks at life from one end of the country to the other, a horrid and excruciating sight. No free civilized country can remain passive in the face of such condition, as is evident in so many places outside India.

The same is the case with education. No civilized society can tolerate the soul destroying barbarity of a miserly irrigation of the popular mind, such as can enable knowledge to penetrate but a few inches of its upper layer putting at least a thin veneer of intellectual life over the stony inertness of the vast desert beneath. And I cry shame on the cruel fate that compels India to submit supinely to such a plight.

There are certain minor planets that keep the same face turned towards the sun, maintaining a perennial distinction between their light and dark halves. Similarly accused is the society which gives access to the light of knowledge only to one portion, leaving the larger part in permanent darkness of spirit. The moral separation between these two sections is greater than that between race and race. It is for the sake of uniformity of

culture that civilized nations consider similarity of education throughout the body politic to be so essential.

Lack of Funds—no Plea.

In the present age, countries that are unable to give and take the products of culture, fall behind the race, remaining bound to their own corners. No cultural country has dared to risk such fate on the ground of lack of funds. I have seen how other parts of awakened Asia, outside India, have accepted their responsibility for the spread of education amongst their peoples. When I was in Russia, its new Government had but eight years of life behind it, most had been taken up by disturbances due to constant revolutions, leaving them neither leisure nor money. And yet, within the short time remaining the wonderful speed with which education has spread through the masses of their vast country, appears to be nothing less than magical to the luckless inhabitants of India.

It has taken us so long to come to a clear understanding of the simple truth that national unification presupposes uniformity of education only, as I have said, because of our ingrained habits. When the great-hearted Gokhale took up the cause of compulsory mass education it was in Bengal that he met with the greatest opposition, the very Bengal which was the most vociferous in its insistence on national unity. It was nothing but its having become habituated to disunion that prevented this province from perceiving the impossibility of marching on to effective nationalism so long as a wide educational gulf separated its ranks. The anchor keeps hold on the mud beneath, while we blame the tattered sail for our failure to get across.

Past and Present Culture—a Contrast.

It may be argued in reply that our society even in the days when it was full of life, was still divided into the learned and ignorant. The subtle discussions on grammar and logic that went on in our '*tols*' were confined to the wrestling ground of the pandits, and the people at large took no part in these intellectual gymnastics. I admit it. Such pedantic tournaments are in all countries held far away from the field of life. But what I want to point out is that the knowledge which in the old days had its origin on the topmost peaks, found its way down, and spread in streams of the same culture over all the different levels of the country. No mechanical institution of learning had to be founded for the purpose. The whole of our social system was permeated

by the living force of the self-same wisdom, as the body is by the life blood; some of the carrying veins may be larger, others smaller, but they all belong to the same body and circulate the same blood.

The forest returns to the soil, from which it draws its sustenance, all the materials of life in ample measure, thus providing for its roots below the nourishment required for its fruits on top. That is why the forest soil remains forest bearing and is not reduced to desert. It was thus that in our society the lordly bearers of the fruits of wisdom showered their life giving gifts on the dwellers on the ground below. But the modern western education we are now receiving does not thus vivify the mass mind of our country, from which it remains hopelessly aloof.

No Gulf in Past.

In the old days there was not this gulf between the mentality of the best of our pandits and the most illiterate of our villagers. The minds of the latter were prepared to relish *shastric* lore, so that they were not restricted merely to a distant vision of it, but actually shared in it according to their capacity. But our minds have not been put into similar familiar relations with modern scientific knowledge. That has, however, happened in Japan in the course of only half a century. That is why Japan has been able to extend its own sovereignty over modern education, in which it does not merely pass examinations, but which it has made its very own. Leaving out our masses there are in our country only too many holders of academic degrees in science, who remain as prone as ever to believe anything and everything, who have no compunction in putting superstitious fancies in the same rank as scientifically tested facts. They have fitted their country best with modern sails and rudder but the current of the stream remains against them, wherefore they go backwards not forwards.

Appalling Illiteracy.

India is the only country outside barbarism that has a bare eight or ten per cent of literacy. In such a country one feels ashamed to hold an educational conference with pomp and circumstance. Oxford and Cambridge have their universities. So have certain places in India. It is, however, only the outside resemblance of the latter to the former that makes us jump to the conclusion that they belong to the same class; as if universities consisted of buildings, and paraphernalia alone. Oxford and

Cambridge do not mean only these, they mean England itself, and in this lies truth. Our universities have stopped at the limit of their boundary walls,—but that is not because of their immaturity. We do not mind a child being short of stature, but one in whom there is not the potentiality of full growth cannot claim kinship with a line of grenadiers.

Those who brought their system of education along with their government into our country, even then we find boastfully trying to delude us, and themselves, with the display of erection of brick and mortar. Some time ago I read in a newspaper the speech of a governor of a province, when laying the foundation of a university, in which he said that education did not consist merely in acquiring knowledge, but in doing so within a respectable building. That, according to him, was also a part of the educational process, meaning, I suppose that the walls of the room were no less important than the teacher *within* them. Our objection is, when we are informed that funds do not permit of making the swords of better material than wood, then it is waste of money to make the scabbard of steel. According to our eastern notions of value, we do not believe it to be necessary for the vessel to compete in excellence with the nectar it contains, so we cannot even think of valuing the nectar of knowledge in terms of wood or brickwork. That which is truly great in itself does not need outward display to be made to appear great.

A Living University in Kashi.

As a matter of fact, we still have a living university in Kashi, as true as it is natural, and yet not obtrusively obvious. The roots of our ancient culture are still living there, though it has no college building, no expensive or elaborate administrative machinery. The unwritten code in our people's hearts regulates in the good old way the imparting of its gifts of wisdom. The unaffected cordiality of the relations between teachers and students, the devotion, the geniality, the simplicity that pervade its atmosphere, have even risen superior to desire for external embellishment, for the sole concern there is truth. As for the western intellect, it cannot even conceive how it is possible for our artisans, with their paucity of tools and materials, to produce their great works of art. Unfortunately for us, we now-a-days understand this even less than the westerners. That is why it has become too easy for us to glory in buildings and curricula, in rules and regulations, receding further and further from the simple solution of the problem of life arrived at by our ancestors.

Shameful Stigma of All-pervasive Ignorance.

In the result, while our economic condition remains much the same, or becomes worse, we have taken to copying standards from countries where there is not the same discrepancy between the display and the means behind it. Just imagine that in this country, ridden as it is with preventible disease, the expenditure on sanitation has to be curtailed for lack of money; and adequate funds cannot be found for wiping out the shameful stigma of an all-pervasive ignorance. That is to say the measures for removing the deficiencies that are dragging us to death's door are as feeble as the people themselves have become. And yet the cost of our Government is even higher than that of much richer countries, and the expenditure on the external paraphernalia of education far exceeds that on teaching proper. This defect at the root is what sorely troubles me and this trouble of mine is what I want to lay before you.

Vernacular Medium of Education.

In what I wrote before, I put these anomalies down to the lack of a proper medium of instruction. I said that unless and until we could be in a position to assimilate, to make our own,—this system of education brought in from outside, we should never get rid of the habit of looking upon external magnificence as so much education gained, like an insolvent merchant gloating over his borrowed capital as profit. And I pointed out that the best way to make this education our own would be to impart it through the medium of our own language. That the mother tongue is for students what mothers' milk is for infants is what I then averred and now repeat. If my plea, which then fell on deaf ears hypnotized by the repetition of foreign texts, still fails to go home, I can only hope that other voices will put it forward again and again.

The least attempt to tinker with our official educational machine requires any amount of hammering for which a strong arm is needed. Such strength of arm had Sir Ashutosh Mukherjee, and he succeeded in moving our university so far as to declare that however proficient in English a student of Bengal may be, the completion of his education would involve a knowledge of Bengali. It may be that this has started it on the right road. It may be that had Sir Ashutosh still been with us, its wheels would not have stopped at this point. It may be that its present authorities have even yet the desired end in view. If then, I still trouble you with my misgivings, that is because the vehicle

of the University is exceptionally cumbersome, while the road of our language is still insufficiently paved. My fear is that the difficulties anticipated on that account may lead to an indefinite postponement, amounting to never. Our staying power is not commensurate with the stately slowness of our progress. Hence my anxiety.

Make a Start Forthwith.

So I urge that instead of waiting and waiting for the best possible condition to precede, it is better to make a start forthwith even though the results be less perfect, just as we are content to plan a sapling that merely bears the promise of the full grown tree, a promise that will be more and more fulfilled as it approaches maturity. When the child stands beside the adult, it does with all the indications of eventually attaining his full stature. It is not that in some compartment its legs are being fashioned for a year or two and in another its arms have progressed up to the elbow joint. Even the Creator is not so excessively careful about perfecting each separate part, but is pleased to allow immaturity to show at each stage signs of its ultimate perfection. That is the kind of infant Bengali university, the birth of which I should like to see—not one turned out of a workshop piece by piece, but one that can take its stand by the side of its elder, bearing on its feature the stamps of the conquering hero that is to be.

Those who have done teaching work know that certain types of students can never master languages. Even if such, with their necessarily imperfect knowledge of English can manage to get through their matriculation, they find it impossible to mount the academic steps any further. There is more than one reason for this. Firstly, there is nothing so terrible as the English language for one whose mother tongue is Bengali. On top of that, only few, least of all those who are poor, get the chance of learning English from a competent teacher. But do they, therefore, deserve to be excluded from the university? In England they used to hang people for stealing. Is the penal code of the University to be still more severe entailing capital sentence for failing to steal? For what else but theft can we call the filching of a degree by memorising a book without understanding its contents—how is that any better than carrying the book itself into the examination hall, hidden in one's clothes? But it is not those who pass whose fate I deplore, so much as of those who fail. Cannot some other means be provided, even if less showy, for testing their knowledge, just as for those who find the Howrah

bridge closed, the ferry service, or at least some kind of licensed country boat is still available.

There is one great difference between our country and a free country. In the latter only those students learn a foreign language who consider it necessary for finishing their education—it is not necessary for their daily avocations, because all the work of the country is carried on in its own language. In our country most of its work is carried on in English, so that it is not enough for us to learn the language, we must also know how to use it to the satisfaction of our rulers, for to the extent that we do so can we gain recognition from them as well as from our own people. I remember hearing an English speech by Eucken, the German philosopher. I flatter myself that I can recognize English, when I hear it spoken, but Eucken's English fairly baffled me. No one thinks the less of Eucken on that account, but just imagine what would have been my fate had my English been like that. No force makes our countrymen laugh so much as does a lapse in using the English language—a laughter that is tragic with the shame of foreign subjection.

So long as our condition remains thuswise, our would be educated people needs must learn not only enough of English, but more than enough for their own purposes. And the time so taken up necessarily means so much less left for devoting to education proper. Nevertheless, it is no use pointing out that a good grounding in one's own language cannot but facilitate the better learning of English. The need of the latter is too urgent for any one to dare take the risk of testing the truth of this. So I can feel that it would be too venturesome on my part to plead for a Bengali university standing supreme. Unless adequate safeguards are offered for what now exists, the whole idea of pan-national education may fall to the ground—that is my apprehension. Therefore, I only say, let the full courses within the university be cooked in English style and served on English utensils for those who can afford to pay for them but let the rest of the guests, waiting outside, be given some of the food, if not on tables at least on plantain leaves laid on the ground.

Osmania University's Example.

Then again it used to be objected that high education in Bengal must for long years, if not for ever, continue to be given through English, because of the lack of suitable text-books in Bengal. Any attempt to reply to this used to lead to a mere bandying of words, because there was no example to point to.

This obstacle has now disappeared. The University of Hyderabad (Deccan), though the youngest of Indian Universities is, perhaps because of its youth, the most go-ahead. It has, moreover, probably found it easier to realize, because of its independence, that the most effective way of cheating oneself is to be miserly in regard to matters of education. In this University Urdu has been made the medium of instruction from top to bottom. So they have their structure as well as their stairs for easy inter-communication between the lower and upper floors. And for this we have to thank the indomitable devotion and energy of Sir Akbar Hyderi. If the great work, he has thus done for those whose speech is Urdu, can serve to induce us to speed up a like educational reform, we may within a measurable time claim equal status for our university with those of other civilised countries.

At the bottom of my plea for education through our own language lies my own experience. Strangely enough, in the days when I was a child, there was an institution in Calcutta in which all branches of knowledge were taught purely through Bengali. In those days, the schools which kept their faces turned towards the portals of the universities—teaching their pupils that the first personal pronoun was ‘I by itself,’ and making them say by rote ‘He is up,’ and such like interesting sentences,—were mainly intended for boys of aristocratic families. For the rest, side by side with these were the vernacular schools, which aimed at the finishing touch of an institution called the Normal School, which amounted to a vernacular university of lesser dignity.

As luck would have it, my guardians sent me to this Normal School. All that I learnt there was through the medium of Bengali—geography, history, mathematics, something of natural science, and the kind of grammar that tried to raise Bengali to the dignity of imitation Sanskrit. The standard, on the whole, was not less than that of the matriculation of those days. This school with its Englishless lessons I attended till my twelfth year and thereafter when the time came to enter an English school, I played truant for good. Anyhow, as the result, I obtained free access to the store-house of Bengali lore. What though the store was not large, it was ample for nourishing and stimulating the mind of a boy of the age I then was. I was, moreover, saved from having with a half starved mind, to limp painfully up the steep climb to a foreign language. And because, at every step, learning and understanding did not get their heads grievously knocked together, my early years had not to be spent in an educational hospital.

What is Necessary for Healthy Mental Life.

I had even more to be grateful for. One of the chief functions of education is the training to express one's thoughts and feelings through language. This give and take between within and without is necessary for a healthy mental life. But if that has to be done through a foreign language, it becomes like trying to act a play with a mask over one's face. The creation of literature is in no case an easy matter, and to begin to do so in a foreign language has a permanently crippling effect. As for me, I was fortunate to gain the joy of expressing and adorning my sentiments in my own language. That is why it is so clear to me how proficiency in the mother tongue gives later the courage and ability to master and wield a foreign tongue as well. I feel certain that if I have been successful in hiding from English knowing people my shortcomings in that language, if I have been able to make good use of such scraps of it as I happened to pick up whilst playing truant, that was because in childhood my mind attained its full development by virtue of the unadulterated fare of my own language, rich in nourishment as well as in the life-giving magic provided by the Creator himself.

Conclusion.

In conclusion, it is my appeal that some modern Bhagirath should come forward to lead the stream of learning through the channel of Bengali up to the sea of universal human culture, so that the minds, now lying lifeless under the course of ignorance, may be revived by its vitalizing touch; and our mother tongue, rescued from its shameful neglect, may take its proper place before the world. Maybe some grave and reverend personage will complain that I have but put forward a poetic ideal, and make no practical suggestion. Be it so. To that I would reply that practical proposals so far, have only resulted in patchwork, and that ideals alone have ever brought into being living creations.

WIDER PROBLEMS IN EDUCATIONAL RECONSTRUCTION

BY

DR. G. S. KHAIR, M.A., Ph.D.

Planning and reconstruction—sign of awakening.

Planning and reconstruction are the order of the day. There has been talk of economic and social planning in the air and it is no wonder that education also, being a part of the social organisation, should partake of this reconstruction and planning enthusiasm. It is not bad. It is a sign of awakening on the part of those who control education and of those who run the show.

Popular demand and official complacency.

The public have been conscious of a need for educational reform right from 1907-08, when independent institutions were started to bring about those improvements in education which officially recognised institutions were unable to introduce. The repeated waves to start national schools and institutions were an indication of the dissatisfaction of the people with a type of education which refused to face squarely the realities of Indian life and society. Unfortunately, the authorities who controlled education were complacent and entertained smug satisfaction for whatever progress was made without much disturbing the existing routine and the organisation. No doubt commissions were appointed by the Central and Provincial Governments, but they have had no more effect than that of making some useful addition to our educational literature. Whatever progress there was in education was quantitative in nature. Schools increased and pupils crowded the schools. But the Departments of Education still worked on schedules and syllabuses that were made in 1914, twenty years back! They refused to note the change in the social situation and the consequent demand for different types of education, schedules and curricula.

Reconstruction is the Idea of the Day.

The time has now come when this dissatisfaction against the present state of things has gathered strength and is being vented on every occasion. Conferences, convocations, school and college

gatherings, anniversary addresses—all these occasions are used by officials and non-officials for running down the present system of education and suggesting different panaceas. Chancellors and Vice-chancellors of Universities, educationists, and public leaders—all are unanimous in declaring that the present system is proving more and more un-suitable for the needs of our present society.

Official initiative.

The special feature of this present wave of educational reform is the impetus and recognition given to it by the Government. In some provinces, the government have outlined their own schemes and placed them before the public for criticism and suggestions. The efforts of the United Provinces and Bengal are well known. The Central Government also have moved in the matter, and invited from Provincial Governments their solutions for re-organising the educational structure.

This initiative by Government is an auspicious augury that something will be done. One is, however, very suspicious about the sincerity and the will of Government owing to our past experiences. Investigations, commissions, committees, and tentative proposals are many times the devices to lull public dissatisfaction and postpone action. Have we not instances of valuable reports and proposals of educational commissions lying idle on official shelves? The main difficulty is not that of getting a scheme of educational re-organisation, for such schemes are in the air and they are ready on every tongue. We all know the weak points of the present system and can suggest plans for reconstruction. The misfortune is that there is no sanction at the back of our schemes to enforce them in practice.

Reform is not Reconstruction.

It is necessary to make a distinction between educational reform and educational re-construction. Educational reform takes care of temporary defects in the system and introduces certain practical changes, without in any way changing the direction or the basis of education. On the contrary, educational reconstruction takes into account the very basis and the accepted theories of the system that has become inadequate owing to the changed conditions and demands of society. A new basis or philosophy is set up and the details of the system are planned on the foundation of this.

A caution.

In our plans for educational re-organization, we are apt to lay undue emphasis on what appear to be the immediate difficulties and drawbacks in the present system. In trying to remove them, we may be sowing the seeds of other difficulties that may crop up in the next generation. Unemployment and lowered standards are serious drawbacks in our system, no doubt, but a new scheme that concentrates its attention mainly on these issues is, in the long run, apt to be short-sighted.

Wider foundation is needed.

The public are likely to put more emphasis on economic values, and the school-men or university people are apt to place more stress on selective barriers and academic standards. A scheme that satisfies these two sections of the public will even then be a very temporary measure. What we need is a thorough-going overhauling of the system. We have had this type of education for a hundred years. The time has now come to review and criticise our achievements and lay the foundation for the next hundred years, for the next five generations. This can be done only when we look through and beyond our present difficulties. We have to look at our society as a whole, consider our social needs, our aspirations, our way of looking at life and culture. Our minds are at present obsessed by the facts that a number of young people are unemployed, that a lot of pupils fail every year, and that the so-called 'standard' of English is very low. With due consideration to these difficulties, we should also look to the larger demands of our society of to-day and tomorrow.

Re-orientation is Necessary.

What is needed is an educational rejuvenation or renaissance. We have to create the atmosphere for it. Our educational thought, as it is to-day, is not yet mature enough and fully developed to enable us to plan out a far-sighted and comprehensive scheme of education. It is not surprising under a system where private initiative, original experimentation, and independent thinking were seldom encouraged. But now we have to think hard, think deeply and plan boldly. Let us have the intellectual boldness of thinking about Indian education, unhampered by our anxiety for the old system. The starting point and reference for our educational thought should be, not the old system and the established subjects, but the needs of our society, our culture, and our younger generation. Any scheme that

does not have this social approach to education, should be accepted with caution. We should not commit ourselves permanently to a short-sighted, make-shift and hastily hatched scheme, although it may seem to solve temporarily some of our present pressing problems. These may be accepted as tentative reforms, but they should not blind us to the need of a thorough educational reconstruction in the light of our social needs and aspirations.

Defects of the old system.

The present craving for educational reconstruction has its roots deep down in the old educational system. This system which has become outworn for the needs of our society, has given rise to certain evils, which Government and the public are anxious to remove. These evils are the logical and natural outcomes of a system which was based on temporary needs, and not on any far-reaching conception of society. Most of the proposals that are advanced for educational reorganization are designed to remove the following evils:

1. Unemployment of educated youth.
2. The over-crowding of high schools and colleges by pupils who have no academic aptitudes.
3. The lowering of academic standards.
4. Certain administrative difficulties, such as the control of the Matriculation examination.

These are, no doubt, some of the chief problems which need to be solved by certain reforms in the system. But a new plan of educational re-construction will have to take into account certain wider aspects of our society, in addition to those that have been mentioned above.

Suggested Reforms.

Proposals for re-organisation have been made by various persons and agencies in different provinces. The Report of the Punjab University Enquiry Committee, the U. P. Government scheme, the Government of Bengal Resolution on Education, the proposals of the Conference of Indian Universities, and the proposals of the Hesketh Committee in Bombay Presidency—all these schemes have certain things in common, although they were framed to meet the specific problems of different provinces.

Certain common aspects of these schemes may be mentioned here.

1. Re-arrangement of the various stages and levels in education, such as primary, middle and high school, and re-distribution of the total period in years given to each, as $5 + 4 + 3$ or $4 + 3 + 3 + 2$ etc.
2. Introduction of vocational or pre-vocational education or manual training in separate schools or in high schools.
3. Differentiation in courses at each level, and placing of selective barriers for the academic courses in high schools and colleges.
4. Modification of the 'examinations and certificates' machinery to secure recognition and social prestige for different courses newly introduced.

The Old Basis Remains.

Every one will admit that the above reforms are urgent, vital and practical. But they are more of a mechanical and administrative nature. They do not in any way change our basis or theory of education. They are open to the same criticism as the old system, that they are narrowly practical and are likely to engender other evils in the next generation. We cannot hope to solve immediate problems like unemployment only through vocational and technical education. In Western countries there is the problem of middle class unemployment in spite of vocational education. However, it is certainly possible to influence the economic outlook of the next generation through education. It is a very slow agency of social progress.

Recognition of Social Aspects.

One thing that emerges out of the proposed plans of re-organization is the recognition that education should be used as an agency for directing and influencing our economic, social and cultural life. When discussing educational theory, we hold that 'Education is for life.' In actual practice we find the established 'subjects and courses' exercising an undue influence on our education. We glorify these subjects at the cost of life. The choice of these courses is not made consistently with our theory of life. In our educational reorganisation, we do not start from

life and society, but we start from these subjects and courses and try to maintain them as far as possible, without seeing whether they have any reference to our individual or social life.

The New Basis.

Our hope for educational reconstruction lies in changing this basis of education. The old system emphasised and glorified the subjects and courses as important in themselves. A re-organised system should emphasise individual and social life, and use the subjects only as instruments and tools. 'The goal of our new education should be to help the individual and society to live a better life. To put it briefly, social efficiency and individual self-realisation should be the basis of our educational re-organisation. It should aim at improving the all-round status of our society, while trying to solve the temporary problems like unemployment and lowered academic standards.

Some Problems of Our Life.

If we accept this social and individual approach to education, there are certain aspects of our life which need to be kept in view before proceeding to formulate a new educational plan. From the view-point of individual needs:

1. It is necessary to teach every individual some occupation or vocation for his or her economic security.
2. Every individual should have some general education and civic training.
3. Every individual should have scope to choose a school, or subjects, or courses in accordance with his or her aptitudes.

From the view-point of Indian society, we should keep in view the following problems:

4. The economic status of our society needs to be improved by a conscious educational emphasis on the economic and industrial aspects of life.
5. It is necessary to develop in the younger citizens a mentality favourable to the social adjustments between different sociological groups.
6. If democracy is the goal of India, education should consciously sponsor that ideal and prepare citizens to shoulder political responsibilities.

7. India has become culturally self-conscious and wants to maintain her cultural individuality. Indian arts, literature, philosophy and religions should form the major part of compulsory general education.
8. National health and defence of the country form an important item in social re-reconstruction. Education is an effective agency for this purpose.

Principles of Reorganization.

Having thus determined the needs of individual pupils and the problems of Indian society, it is possible to deduce certain fundamental principles for the re-construction of Indian education. An attempt is made here to state some of these broad principles:—

1. Provision of pre-vocational education or vocational bias courses in middle and upper schools.
2. Provision of intensive vocational education on every level—primary, secondary and college.
3. Provision of a variety of courses in high schools and a variety of post-primary schools to meet the demands of individual differences and aptitudes.
4. Differentiation of the curricula into compulsory and optional subjects; the compulsory curriculum should include general education and civic training; optional curriculum should include pre-vocational and special aptitude courses.
5. Civic education, aiming at developing a common civic loyalty, should form part of required training on every level.
6. The Indian economic point of view should dominate the courses in Geography, Science and pre-vocational subjects.
7. The ideal of a national culture and common civic loyalty should dominate the courses in literature, history and civics.
8. Greater emphasis needs to be placed on the study of the social sciences according to the intellectual level of the pupils. Important concepts in economics, politics, sociology and culture should form part of secondary education.

9. Indian philosophy, religion, art nad music should form part of general cultural education in secondary and post-secondary curricula.
10. Physical training should be compulsory for all children and semi-military training should be provided for boys above a certain age.

Sociological Emphasis.

The administrative and technical details of an educational scheme can be decided when once the broad principles have been made definite. In India, the approach to educational re-organization should be mainly sociological. It should lay emphasis not only on teaching vocations, but also on developing an economic consciousness, or mentality. Merely the addition of vocational courses does not solve our problem. We have to disturb the established high school subjects and make the necessary additions and eliminations. It is essential to give some definite direction and philosophy to our general and academic courses. The Indian point of view should permeate the cultural courses. In short, our aim in education should be to enable each individual to live a better life, and it should help our society to improve its economic, cultural, political and social conditions.

WHAT SHOULD TEACHERS DO ?

BY

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The calling of teachers is very noble, indeed. This is the reason why even great prophets are called teachers of mankind. In this way, a kind of sanctity is associated with this profession. In fact, for a long time education was thought to be one of the chief duties of the church everywhere. It was, therefore, not possible to distinguish the teacher from the priest and the priest from the teacher. Both of these were thought to be workers in the same field—workers for the uplift of mankind. It were they who taught people the meaning and value of life and equipped them with moral and intellectual resources to fight the battle of life.

There came, however, a time when education took on a secular aspect. For reasons into which it is not possible to go into at this time the church ceased to exercise a dominant influence on education. Education then came to be for merely material ends, and educationists aimed only at providing a sort of bread and butter education through their institutions. This was something very low indeed, but people had to be content with it in this highly competitive age. They came to look upon education as on any other profession or industry as a source of income. They began to measure its utility by the gross results that it produced and not by the intangible values of life that it engendered.

This has, in fact, been the bane of our modern education. We ask a teacher these days, how many students he has on the roll of the school. If the number of scholars is on the upward grade we believe that the teacher is justifying his existence. We ask him also how many scholars he has passed in a particular examination. If the pass percentage is on the increase, we believe that the teacher is conscientious in the discharge of his duties. But if there is a decrease in the pass percentage we think that the teacher has been remiss in the performance of his duties. Similarly we enquire of teachers how many pages of a particular book they have taught in a week. If they have done the required number of pages we think that all is right with the world; but if,

by some chance, any teacher has failed to do the required number of pages we accuse him of slackness.

But I believe that teachers are not to be judged by these things. They are not to be judged by results which can be weighed, measured or calculated and their main occupation is not to deal with attendance and results and text-books and victories on the playing-field. To think their utility lies mainly in producing these things is to misrepresent them. For to me the chief value of a teacher lies in his being a custodian of the conscience of mankind.

It is, therefore, a pity that teachers should be asked to set before themselves merely parochial and pedestrian aims. It is really shocking that a teacher should be content merely with his immediate ends and not think of the ideals he has to work for. It is also dangerous that teachers should not be allowed to see beyond their noses. In other words, they should be made to work for things which have merely a local or temporary significance. If there is one profession in which matters of local and temporary importance are to be seen in the light of things remote and eternal it is in that of the teachers.

I think such a teacher was President Wilson of America. He started his life as a teacher though later on he became a politician. But even as a politician he did not forget that he had been once a teacher. There are some people who believe that therein lay his chief defect, and that is the reason why he dismally failed as a politician. But I refuse to believe that. He was not such a failure as people make him out to be. Even to politics in which the concern is only with the immediate he gave a wider significance. With a courage that is unparalleled he rose above the details of day to day work; and with a vision that is unsurpassed in its sweep and range he saw the Great War in its true bearings. The Great War, as we all know, had driven the nation into a mad fury of violence and even when peace was going to be signed people were not intent on arriving at any amicable settlement of the issues that had brought about the war. Each nation was intent on ruining its neighbour and each wanted to prosper at the cost of the other. Thus acquisitiveness was at a premium. It was in such a world torn by strife, maddened by a desire to push its frontiers that President Wilson emphasised the need of setting up the machinery of peace. He told people that the end of this war should not be to sow the seeds of another war but to outlaw war altogether. He thus stood before the world as an apostle of peace. It is true he was checkmated by manœuvring politicians and petty diplomats but he did set up before the world a

great ideal which will take people many years to realise. He thus lent to politics the ring light streak of nobility and taught people the value of ideals.

The teacher, therefore, lives mainly for ideals. He is, therefore, the conscience of nations. Even when he is working in a dark room in a tumbledown building and drawing starvation wages he does not forget his noble vocation. Crushed by poverty, bullied by the management, and victimised by the department, he still remembers that he is to work for noble ideals. He thus forgets his present misery and remembers only the joy born of his consecration to higher and nobler things.

The teacher, therefore, is in the world and yet not entirely of it. He is not a producer of utilities like other persons. His chief function is to keep the spirit of idealism alive. It is for this that he works. He thus strives for immediate ends without forgetting to hitch his wagon to a star. I do not think any one else can do a thing like him. Every teacher should, therefore, remember that he is to work for those ideals for which humanity has worked and suffered and died. He is thus an inheritor of the traditions of great martyrs, philosophers, idealists and benefactors and he lives in the faith which inspired them and for the ideals to which they devoted their lives.

MY VISIT TO SOME SCHOOLS IN EUROPE

BY

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The Corporation of Calcutta has been recently working out a scheme of primary education drawn up at the instance of its first Mayor, Deshabandhu Chittaranjan Das. By 1930 the first part of the work had been completed and it was proposed to introduce compulsory primary education in a selected area as soon as the necessary sanction could be obtained from the Government of Bengal.

As the officer entrusted from its creation with the work of organising the Department, I felt that it would be well worth seeing something of what more progressive countries were doing in the same field before actually introducing compulsory education in Calcutta. Opportunities for such a visit were, however, lacking and no steps were taken. The formal sanction to introduce compulsory education was also delayed. In the meantime, upon receiving an invitation from the All-India Educational Conference, the Corporation decided to send me as a delegate to exchange ideas with educationists from other parts of India.*

The desired opportunity, however, came early in this year. When the International Congress of Anthropology and Ethnology invited me to serve as a member of their Permanent Council, it was suggested that after the Congress was over visits might be paid to schools in different parts of Europe. As the Committees had not then been formed, the leaders of the different groups were consulted. They agreed with the Mayor and the Chief Executive Officer that such a visit was worth while and approved of it. After obtaining this sanction I left for Europe.

The original programme had included visits to the school at Veeles near Brussels, and the Maison Des Petits at Geneva, besides schools in Great Britain, Scandinavia and France. Owing to unforeseen circumstances, however, the tour had to be cut short by a fortnight. In consequence the two institutions mentioned

* A paper was read at the Conference at Karachi in December, 1933 and a report was submitted to the Chief Executive Officer.

above could not be visited. In spite of these unfortunate omissions, 42 educational institutions in different centres were visited and their work observed in detail. The administrative system of the Education Officer's Department of the London County Council was also carefully studied. I should like to acknowledge here the courtesy and help extended to me everywhere by the officials of the State and Municipal Education Departments. Without their co-operation, it would not have been possible to see and study so much in the short space of eight weeks.

II

The first thing that struck me everywhere, was that education was planned and co-ordinated with the economic life of the nation. It was also one of the major charges on the local and central revenue. The principles of the educational systems were derived from the facts of human development from the earliest times to the present day. The human brain diverged from the simian pattern when the protohuman ancestor of man had to combine arboreal existence with life on the ground. The invention and use of tools made of stone and bone and the activities essential for survival in the glacial, pluvial and dry periods further quickened the upward surge of intelligence. The early human brain was thus largely developed as the result of the co-ordinated activity of the hand, the eyes and the body. The later and modern human brain is inherited from ancestors who built up their cultures on co-ordinated and co-operative activity called forth and made possible by the domestication of plants and animals. The pooling of human experience and knowledge rendered possible by the invention of writing has supplied the latest stimulus to the human intelligence. Its fruit is modern civilization with its infinite wealth of knowledge and potentiality for further progress. The purpose of education is to place the keys of this treasure-house in the hands of the growing child. The view that a child recapitulates, briefly but in its entirety, the infancy of the race, is not supported by psychological data. Nevertheless the importance of early human experiences, especially those which have (apparently) built up the brain, is undoubted, in devising a proper course of studies. For the intellect can be most economically and suitably stimulated through the same processes by which its development has taken place.

Modern industrial and economic conditions have made it increasingly necessary to study and apply these facts and conclusions of anthropology and psychology to education. Before machines replaced craftsmen wholly, sheer necessity, arising out of the

conditions of work, bred seriousness of purpose and sustained effort in artisans. In other fields also, industrial enterprise was far more common formerly and required persistence and initiative. Factories on a big scale and vast departmental stores, or networks of corner shops, have changed the environment. Unless the statesman of today supplies the equivalent of this required stimulus somewhere in life, the power of the brain (like that of muscles from disuse), is likely to decrease in certain respects in the course of generations. Such a thing is not unlikely. Just as the (now extinct) Moa of New Zealand lost its power of flight, even so certain races with bigger brained ancestors have left modern representatives with smaller brains. The reason, apparently, is that new stimuli to stir up the brain and further develop it was lacking. The average man probably got into a rut and just followed certain rules and practices mechanically, thereby leaving the brain to deteriorate through disuse. This problem is being faced by the schools of Western Europe at the present moment. The question before them is how far what was formerly achieved through the character of man's work can now be achieved through the school; and to what extent the schools can help to make up for the deficiencies inherent to the later industrial and economic life of the pupils.*

In Scandinavia, they believe that the solution lies in giving the child a well-developed and healthy body; skill of the hands and eyes in making things, of use and beauty, accurately to measurement; and in cultivating in him a habit of observing Nature, and the relation between facts in Nature. Throughout Denmark and Sweden, wherever I went, the school invariably had one or more well-equipped gymnasiums, besides the playground; a good Natural Science Laboratory and Natural History Museum; and a well organised wood and metal Sloyd room. In Stockholm, for example, where 20 municipal schools cater to the need of 31,000 children, these educational institutions have no less than 75 rooms for physical training, 60 rooms for Natural History and Natural Science, and 130 rooms for educational hand-work.

The Swedish system of physical training is too well-known and widely adopted to need any comment. Here it may be noted that in Denmark, the method of Ling has been modified by Niels Bukh and this adaptation is taught in their schools.

* It is true that members of the ruling class in England and France (where class distinction is sharper than in Scandinavia), are believed to have different problems to face. Hence their children are educated differently. That does not, however, affect the major issue.

In the field of educational handwork, Sweden may be said to have been the pioneer. The Swedish Sloyd system, as it is termed, is worked out through a series of models—beginning with some exceedingly simple object. The models are so arranged that each represents some slight advance upon the one that preceded it in the course—either some new tool or some new use of a tool previously employed being introduced in the making of it. The utmost care is observed in ensuring that each object when made is the work of one individual pupil. Contact is maintained, through the models, with handicraft in different localities, to guard against degeneration into stereotyped routine work.

Swedish Sloyd work has attracted considerable attention in other Western countries. Great Britain, in particular, has adopted it in her schools and has sent in the course of the last 40 years numerous teachers to the training college at Naas, where the system originated and which is still the headquarters of training in this subject. The standard of work is not however as high as in Sweden, mainly owing to the employment for the purpose of craftsmen instead of teachers trained in craftwork.

III

Children come within the range of educational activities of the State, much earlier in England and France. In Scandinavia, the age grade of compulsory attendance is 7—14; children of six are however admitted, and attend in large numbers. In England the age limits for compulsory education are 5—14; in France it is 6—13. But in both countries there are schools for younger children. In France the *Ecoles Maternelles* admit children from the age of two and retain them up to the age of six. In England the lower limit is three in infant schools and two in nursery schools. In London about 28 per cent. of the children of three years and 57 per cent of four attend such schools.

The ideal of education in these institutions was defined by the founders of the infant schools in France as instruction and training which would be imparted at home by an intelligent mother. To a large extent, this ideal has been realised. In both the countries Montessori materials are widely used for sense training in these schools. For teaching the language the “*methode globale*” is in general practice. In some schools in France, it has been sought to be extended with success to teach numbers involving tens. Formal work, except habit-training has no place at the age of three and just gets recognition in the next year.

IV

The problem of curricula suited to different age grades cannot be separated from the problem of administration. The English Board of Education has perhaps carried out the most far-reaching changes in this respect. The curriculum has been divided into three grades suited to the different psychological requirements—infant, primary and post-primary, for ages 3—7, 7—11, and 11—14 and three types of schools have been organised to work out the scheme. Reference has already been made to the infant schools. The so-called junior schools look after the primary grade, age 7—11 and end with an examination to sort out children standing at different levels in intellect. The best pupils get scholarships and free places in secondary schools. The next best are sent on to “Central Schools”; the rest remain in ordinary elementary schools usually termed senior schools. In these last named institutions pupils are divided into groups of normal, and retarded children and special arrangements are made for the latter.

The Central Schools may be termed (largely) the solution contributed by the London County Council towards education of the adolescent in England to meet the conditions of modern industrial civilization. The model has now been recognised and adopted as the official one for post-primary education of the brighter boys and girls in elementary schools after they reach the age of eleven. As defined by the Education Committee of the London County Council their objective “is to prepare boys and girls for immediate employment on leaving school, and the instruction should be such that children should be prepared to go into business houses and workshops at the completion of the course without any special training.”

In order to achieve their purpose Central Schools have been organised in London with a (1) commercial or (2) technical bias. Some schools have both a commercial and a technical bias. The local conditions in each part of London and the different circumstances of the pupils are carefully considered in determining the nature of the bias to be given to the institution.

As eleven is too early an age to decide on the bias, the first two years at a Central School are spent on general education. This course includes English, History, Geography, Mathematics, a foreign language (usually French; less often German or Spanish), Practical Science, Art, Handicraft, Physical Training and Music. Schools with a technical bias stress on wood and metal work, applied science, practical mathematics and technical

drawing for boys; and housecraft, needlework and art for girls. In schools with a commercial bias, shorthand and book-keeping are introduced in the third year. Commercial practice and typewriting are included in the fourth and fifth year. Most members of the staff, in addition to being trained teachers, are specialists in some subjects of the curriculum. It is obvious that the training given in the Central Schools, while it is cultural and a preparation for life generally, at the same time equips the pupils to meet the requirements of modern industry and commerce.

The courses of instruction in Senior Schools are shorter and the training is less thorough. But the aims and objects are the same. A boy or a girl leaving it at 14 can improve his or her general knowledge as well as get a special training in the different types of continuation schools. Of special interest is the system of day continuation classes for boys and girls working in factories. This is not, however, peculiar to England. In these institutions the students come for one day in the week, work in the factory being excused on that day. Practical as well as theoretical training, of an intensive kind, is imparted.

V

Reference has already been made to the administrative system of the London County Council. It is needless to add that the task of looking after a thousand schools with nearly 600,000 children studying in them has to be handled very carefully. The efficiency with which the job is actually done is due, in large measure to, (1) proper selection of officers, (2) proper selection of teachers, (3) co-operation of guardians, (4) help rendered by local advisers, and (5) delegation of a large amount of discretionary or final powers to trusted men.

The London County Council pays its employees well; but selects them from the best available material and insists on a high level of qualification. Local advisers render valuable help, although they enjoy no powers to make appointments or sanction expenditure; this is left to the officials. Guardians have been through the schools of the London County Council or similar bodies for the last two generations and are naturally more responsive to the calls made on them. Expenditure sanctioned in the budget, is allowed at each school at scheduled rates—without the worry of a fresh and detailed audit report in each case. Opposition to such expenses to pile up a big closing balance—is not the practice.

Stores—for supply of all kinds—are purchased in the usual way (quotations, open tenders etc.) and kept in depots, for sending to schools, when required. Samples of these are kept in the Samples Room, which is a miniature educational museum. Here one finds, not only the samples of stores selected but equipment of different types for teaching different subjects. Materials for teaching the mother tongue, charts for history and geography, apparatus for Natural Science, tools for handwork, a gallery of coloured prints after old masters, are arranged, in orderly series, for inspection, selection and use. Quite appropriately, a circulating library, and a lantern slide section—with 36,000 slides—complete the section. The arrangements for attendance are also very thorough and 99 per cent of the children of school-going age are at school.

VI

The welfare work undertaken by the local authorities for the children in their school was also carefully studied. The children's care-work of the local bodies may be classed under (1) medical examination of the children, (2) treatment of cases of ill-health, (3) school feeding, (4) fresh air excursions. I am leaving out here the care-work on the moral side or the following up after school leaving.

In Denmark and Sweden, there is in general two detailed medical examinations of the school children during the compulsory attendance period—once in the first year and again in the third and fourth year. In England, (where the period of compulsory attendance is longer) there are two more examinations, at eleven years age, and again at thirteen. In France regular medical examination is less well organised.

In Sweden, trained nurses are appointed to supervise the health of school children throughout the year. One nurse is generally placed in charge of every two schools, *i.e.*, about 2,000—2,400 children. Any case of ill-health is at once reported to the school doctor who generally calls once a fortnight. In London each school has a local care committee; these co-operate with the salaried staff, in rendering valuable help for this type of work in general. In France, more dependance is placed on private endowments and philanthropic organisation.

Cases of ill-health are attended to in municipal or recognised private clinics or in hospitals. In Sweden dental clinics are attached to the schools and every child has its teeth examined once a year.

In England, arrangements are made for supplying a nourishing meal, or milk or tonic food, in case of malnutrition or delicate health. Actual under-nutrition in London is however less than five per cent.* In Sweden about 10 per cent. of the children at school get a free meal.

Apart from open-air schools, where delicate children are transferred, all the countries visited have arrangements for sending such children to the country or the sea-side during summer. Shorter excursions (of about a fortnight's duration) are arranged for other children also, combining it with ordinary school work.

VII

The shortcomings of our arrangements for looking after the children of school-going age do not need special enumeration. In a report submitted to the Primary Education Committee in 1929, certain suggestions were made with regard to (1) buildings, (2) hours of work, (3) co-ordination of work in school with that in the playground, and (4) school feeding. All these recommendations, besides the important question of medical inspection, are still awaiting disposal. It is necessary that definite decisions should be arrived at on these points, the more so since it has been decided to compell all parents to send their children mostly to our schools.

On the teaching side, it is necessary to raise the quality of work. The Training College requires to be strengthened with at least a teacher for Natural Science and Natural History and another specialist for Sloyd work. The present system of recruitment of school teachers should also be altered. It should preferably be by a competitive test—after which selected candidates must undergo training. During this period they should serve as a kind of leave reserve—for appointment in the temporary vacancies. This will ensure the practice necessary during training.

An educational museum should also be organised, to help the trained teachers in making their choice of methods and materials. Finally, in order that well-thought-out schemes may not be lost in the wilderness of audit difficulties, the procedure should be simplified and wider powers given to the departmental head.

It is not proposed to discuss these points in detail as they will appear in the report shortly to be presented to the Primary Education Committee. What I have tried to do here is only to give a brief outline of what I saw and how I feel about it.

* Our figures are about ten times this percentage.

VIII

I shall conclude this brief article with a reference to the Folk High Schools in Denmark.

The Calcutta Corporation does not at present enjoy the powers of imparting adult education. The problem is however there; and the Danish experiment is valuable to us as it began in circumstances nearly as unfavourable as those in our country. "The Danish peasantry at the beginning of the nineteenth century, was an under-class—without culture and technical skill, and was seldom able to rise above the level of a bare existence." "In the early nineteenth century, endeavours were made to start agricultural schools for the peasants. But they did not succeed as the pupils did not possess the universal education necessary." "In the course of a century this under-class has been changed into a well-to-do middle class which politically and socially now takes the lead among Danish people."

The foundations of this great progress were laid by universal primary education. The superstructure has been built by the Folk High Schools. These institutions were organised about the middle of the nineteenth century as the result of the preachings of Grundtvig and the labours of his disciple, the peasant pedagogue Christian Kold.

The Folk High Schools are residential institutions and impart short courses of instruction (about five months per course) aiming, more at rousing the young people, mentally and emotionally, than at conveying a large amount of positive knowledge. "Their object is to enable the pupil to return to their daily work with a deeper understanding of human life and its problems." Some idea of the kind of work done may be gathered from the following routine of a whole day, up to "lights out" at 10-30 p.m.

Morning song and Breakfast—Lesson on History or Philosophy or Literature (ending with an appropriate song)—Gymnastics—Hour for questions and discussions among the pupils—Midday meal together—Free time—Arithmetic—Drawing—Danish Composition—Evening meal—Sometimes a lantern lecture—Discussion and Free time.

Excursions are also part of the programme. Instruction in all subjects is imparted through the historical method.

A foreigner can perhaps get a good idea of the life in these High Schools—not so much by attending one intended for purely

Danish Folk,—as by staying in the International Folk High School at Elsinore, even for a few days. It is only fair to add that the personality of its organiser and head, Dr. Peter Marniche, contributes very largely to the success of the institution.*

* The arrangements made for education of the adult peasantry in Denmark is of special interest in our country. But as this note is meant to cover educational problems and practices that are within the powers of the Calcutta Corporation to deal with or adopt, discussion of this interesting topic is excluded from the article.

AN EXPERIMENTAL INVESTIGATION OF THE RELATIVE VALUES OF A YEAR'S COURSE IN FORMAL GRAMMAR AND LIBRARY WORK

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I

Purpose of the investigation.

There is at present a widespread enthusiasm in schools for the teaching of formal grammar, as an effective instrument for the improvement of the High School pupil's level of English. The belief has been that bad English is due to ignorance of Grammar. In consonance with this faith, the teaching of formal grammar, 'the grammar that begins with the picking out of nouns and ends with the parsing and analysis of complex sentences,' is being advocated in all classes for two periods a week.

As opposed to these champions of grammar, there are a host of educationists who honestly believe that efficiency in English cannot be accomplished by drilling the principles of grammar into the brains of students, but can be attained only by allowing the pupils to pick up both the vocabulary and the grammar by his explorations into the 'realms of gold.' All that we should do, according to them, to secure correct and good English is to place the pupil in an environment of English. But since the Indian pupil is not living in an atmosphere of cleanly spoken English, the only possible alternative is to provide for him abundant reading material.

The purpose of the investigation, reported in this paper, is to discover the relative merits of a systematic teaching of formal grammar on the one hand, and supervised library work on the other. To be more specific, the problem is to determine whether an organized programme of Library Work in the classroom and at home is as effective in point of developing language skills as a systematic course in Formal Grammar.

II

Procedure.

(a) *Selection of pupils;*

The investigation was carried on in the Maharaja's High School, Mysore, with two sections of the IV Form, referred to

hereafter as Library and Grammar groups. Owing to administrative difficulties the students could not be distributed into equal batches on the basis of their intellectual ability. The intellectual level of the groups, however, was determined on the basis of the scores derived by the administration of a battery of intelligence tests, before the commencement of the experiment. The table below gives the median and the P. E. of the two groups in the tests.

TABLE I.

Name of group.		Median.	Probable Error (P.E.)
Library	..	.. 49'0	9'0
Grammar	..	.. 44'75	8'27

The difference between the median Library pupil and the median Grammar group pupil is 4.25 points in favour of the former, which is not enough to establish a real difference between the two. And since the two groups were formed by the administration arbitrarily without any definite purposive distribution, we may take it that the two groups are not wide apart in point of native ability.

(b) *Control of factors;*

The experiment extended over nearly six months, during which time for two periods a week Library Work was introduced into one section and Formal Grammar taught in the other. The teacher who handled the two classes started with an open mind uninfluenced by any presuppositions in favour of the one view or the other. Non-experimental factors were as far as possible kept under control. The groups studied the same content in all subjects except under grammar and were taught by teachers of about the same standing and teaching experience. Both the groups migrated from the Middle School course where, according to the present departmental requirements, a compulsory course in grammar from the use of Capitals to the rules of Syntax, is in force. It may, therefore, be said that the two groups had about the same equipment in English grammar before they entered on their secondary school career.

(c) *Technique of the Experiment;*

A scheme of lessons was drawn up to be followed step by step, each division ending with a short time test, to make sure whether the lesson was followed properly. The pupils maintained class note-books, which contained whatever they thought was

important during classroom discussions. Not a syllable of notes was dictated by the teacher.

The Library group had two continuous periods of Library work once a week instead of Grammar. Before the commencement of the experiment the students were apprised of the fact that they would receive no tuition in grammar for the year but would get plenty of good and interesting books to read. This proposal was met with universal jubilation. About 75 books carefully selected and arranged according to different grades of difficulty were distributed to the pupils, roughly according to their level of language ability. For the first two or three weeks the teacher himself selected what he thought was the proper book for the pupil. Later on, the pupils themselves urged for the books of their choice. Every student maintained a Library note book, wherein he recorded whatever he thought was fine, beautiful or appealing. It was a hard time for the teacher explaining to every one what note taking meant. A few weeks later, the pages of the note books swelled and even the most backward pupil had something or other sketched in his book—words, phrases, fine expressions or a few sentences. The list below gives an idea of the various kinds of books studied and the number of times they were borrowed by the pupils.

TABLE II.

Kind of library book.		Number of times studied.	
Fables and Folk Tales	212
Classical Stories	47
Readers	30
Tales from Shakespeare (simplified Ed.)		..	29
Tanglewood Tales	"	..	24
Gulliver's Travels	"	..	22
Arabian Nights	"	..	21
Heroes by Kingsley	"	..	21
Tales by Hans and Anderson	"	..	19
Tales from Morris	"	..	15
Oliver Twist	"	..	13
Robinson Crusoe	"	..	12
Hereward the Wake	"	..	10
David Copperfield	"	..	9
Book of Knowledge	44
World of Wonder (parts)	52
TOTAL		..	580

On an average, therefore, each one of the pupils borrowed (and probably read) twelve books from the Library class during the period of experimentation. Tales from Shakespeare were read by more than half the group, while Tanglewood Tales, Gulliver's Travels and Arabian Nights were immensely popular. These seem to be books for all children in all climes and ages.

In addition to the above books read in the classroom under guidance, the general Library register showed that about 60 per cent of them had borrowed 178 Kannada books and 51 English ones. Among the latter were books like Heroes, Tanglewood Tales etc. It may be that since there was a large demand for the Library class copies, some of the zealous readers had sought the services of the regular library.

It would be interesting to study if the Grammar batch of pupils evinced any voluntary interest in borrowing from the general library. A scrutiny of the Library records showed that about 60 per cent of them borrowed 105 Kannada and 78 English books, the latter being primarily books on folklore, stories, adventures etc. There is no doubt that the grammar pupils realised the importance of the experiment being carried on in the Library class, for their fellow mates in the third section of the IV Form borrowed 120 Kannada and only 23 English books. Among their choice were selections like Poetical work of Browning, Coriolanus, Renascent India, History of Aurangzeb etc., books possibly meant for College students at home.

III

Statistical Treatment.

Material for statistical study of the difference between the two groups was obtained by the administration of pre-tests and final tests, whose aim was to measure the amount of improvement in the pupils' language ability. The pre-tests were two in number: (1) An essay written under examination conditions on 'a journey to a place I have visited,' and (2) a language test.

The two above mentioned tests were repeated late in the year as final tests without the pupils getting the least clue as to their repetition. In addition to the above, a General English test of the objective type was given at the annual examination, and the marks of the students in the Non-detailed essay paper and History at the annual examination were studied.

The essays were scrutinised both for quantity and quality. An exhaustive error-analysis was made of the earlier as well as the final essays and comparisons effected on the basis of 'errors for 1000 words.' The Language test consisted of 56 items

illustrating most of the common errors committed by the IV Form pupils, under various heads like, tense of the verb, use of Preposition, Article, Pronoun etc. A comparison of the earlier and the later tests was made on the basis of averages, percentage of gain and Error-quotient. The Annual Examination scores were compared on the basis of the average performance. All the tests were administered under strict examination conditions.

IV

Results.

Since the two groups were practically of about the same intellectual standing, and since the only outstanding varying factor was the Library technique for the one and instruction in grammar for the other, the difference in the performance scores in language skills at the end of the year, may safely be attributed to the experimental conditions under which the groups studied.

The results of the investigation may be studied under three heads;

- (a) Essays
- (b) Language tests.
- (c) Annual examination scores.

(a) *Essays:*

Since the marking of the essays, as evidenced by innumerable studies, is highly unreliable owing to the absence of explicit standards and the personal equation of the marker, the only objective evaluation possible was to study the separate features constituting an essay, and to compare the performances. Boyd in his 'Measuring devices in Composition, Spelling and Arithmetic'* mentions eight qualities as being uppermost in the minds of experienced teachers while evaluating essays. They are, (i) Neat and legible script, (ii) correct spelling and punctuation, (iii) grammatical accuracy, (iv) Fluency, (v) Vocabulary, (vi) Good clause structure, (vii) Good sentence structure, and (viii) Effective arrangement of material. The essays of this study were considered only for Fluency, Vocabulary, Clause and sentence structure and Grammatical accuracy.

(i) *Fluency;*

Boyd measures 'fluency' by the number of words written in a given time and notes that the length of an essay is not unoften

* Harrop.

a reliable measure of composition. A vocabulary, according to Douglass, is a *sine qua non* of effective reading and the habit of enlarging the vocabulary in one of the most important study habits. An enumeration of vocabulary was therefore deemed essential for a comparison of the groups. The table below gives the required quantitative analysis.

TABLE III.

		EARLIER ESSAYS.		LATER ESSAYS.	
		Library.	Grammar.	Library.	Grammar.
Number of essays	..	48	48	48	48
Total number of words written	.. ..	6821	7300	12403	10886
Total number of sentences written	.. ..	720	761	1,097	966
Average number of words per essay	.. ..	142'2	152'0	258'4	226'8
Average number of sentences per essay	.. ..	15	15'8	22'8	20
Average number of words per sentence	.. ..	9'5	9'5	11'3	11'2

The Library batch has increased its vocabulary by 82 per cent, while the Grammar group has increased its stock by about 48 per cent. The average number of words used per sentence remains almost the same in both the sets of essays. The average sentence has expanded only by about one-sixth of its original length, but the length of the essay reveals differences. The average essay of the Library batch is more packed with vocabulary than the average essay of the grammar batch.

(ii) Vocabulary;

Though the quantitative aspect of an essay is not a negligible factor in student composition, the quality is of primary importance. Choice vocabulary is a sure sign of aesthetic quality. A measure of vocabulary in this study was got by finding out the number of substantives, verbs and adjectives employed in the student compositions, since they form the backbone of early vocabulary learning. To attain a command over the names of familiar objects with their qualities and their actions is to gain mastery in self-expression.

The table below presents the number of substantives, verbs and adjectives used by the groups in the essays. It must, how-

ever, be remembered that Proper names, forms of the verb 'to be,' and Proper and Demonstrative Adjectives were not taken notice of for purposes of enumeration.

TABLE IV.

	EARLIER ESSAYS.		LATER ESSAYS.	
	Library.	Grammar.	Library.	Grammar.
Substantives used	.. 1098	1105	1858	1766
Verbs used ..	.. 447	516	1230	903
Adjectives used	.. 428	436	581	635
<i>Average number used per essay—</i>				
Substantives ..	.. 24.4	24.5	44.2	36.8
Verbs ..	.. 10	11	29.5	19
Adjectives ..	.. 9	9	14	13

There is a clearly distinct rise on the part of the Library group in the average number of substantives, verbs and adjectives. It has doubled nearly its original average in familiarity with substantives, trebled its grasp of verbs, and learnt half as many adjectives, while the Grammar group has gained about half as much as its original possession under all heads. The greatest gain for the Library group is under Verbs and the least under Adjectives.

The fact that the Library group has revealed remarkable gain in the knowledge of Verbs may by itself not mean much unless we study the real nature of the vocabulary of verbs over which the pupils seem to have attained mastery. Monotonous repetition of a few verbs like *is, go, come, say* etc., might provide the statistician with high frequencies without demonstrating any real gain in vocabulary. A detailed study of verbs used by the groups was therefore deemed essential to dive deeper into the problem. As already stated, the verb 'to be' was left out of account.

The table below presents the number of verbs used by the groups in the earlier and later essays.

TABLE V.

NUMBER OF ESSAYS 48.

Group.	Number of verbs used.		How many earlier verbs are used in later essays?	How many are not used?	How many new verbs have been learnt and used in the later essays?
	Ear.	Lat.			
Library	112	225	80	32	145
Grammar	124	178	85	39	93

In the earlier essays the Library batch was familiar with 112 verbs and in the later with 225 verbs, *i.e.*, it has gained more than a hundred per cent. The Grammar group started slightly better, *i.e.*, with 124 verbs and had acquaintance with 178 at the end of the year, *i.e.*, an increase of only 43 per cent over its earlier possession. The Library group has more than doubled its store of verbs. On the average the Library pupil progressed from 2·3 to 4·7 verbs, while the Grammar pupil progressed from 2·6 to 3·7 verbs. Of the verbs with which the Grammar batch was familiar, about 70 per cent are remembered and used in the final essays, the remaining 30 per cent of the verbs being unrecalled due either to forgetfulness or want of facilitation. And they have learnt about 2·3 times the number of verbs they have not used. The Library batch also use only about 70 per cent of their earlier possession in the later essays, but in addition to using the earlier ones they have learnt and used more than four times as many verbs as they have not used.

All the verbs used by the pupils in this study may be classified under five heads, *viz.*, Verbs expressing (i) volition, (ii) motion, (iii) action, (iv) state and existence, and (v) intellectual processes. It would be interesting to compare the progress of the groups from the earlier to the later essays under the above categories. The table below presents an analysis of all the verbs used by the groups in their earlier essays and only of the fresh ones used in the later essays.

TABLE VI.

Number of verbs used.	EARLIER ESSAYS.		LATER ESSAYS.	
	Library.	Grammar.	Library.	Grammar.
<i>Verbs expressing—</i>				
Volition ..	.. 42	48	63	30
Motion ..	.. 18	24	19	17
Action ..	.. 26	25	24	10
State and existence ..	.. 11	12	23	22
Intellectual processes ..	.. 15	15	16	14
TOTAL ..	112	124	145	93

It will be seen from a study of the Table that though both the groups started on their course with about the same verb-equipment under all categories, the Library group has beaten the Grammar one under two heads, *viz.*, verbs expressing volition and

action. Both the groups are on the same level in regard to their acquaintance with verbs expressing abstract relations.

(iii) *Idiom*;

Idiom is the very life breath of English language. It is increasingly being felt by teachers of English that the linguistic unit in English language is not the 'word' but the 'phrase' and the 'idiom.' The building up of language knowledge by phrase units is held to be a much quicker process than that by word-units. It was therefore thought desirable to make a list of the idiomatic expressions used in the essays. The essays were studied not for frequency of idiom but for familiarity with it. The table below gives the types of idiomatic expressions (arranged under heads) familiar to the pupils in the earlier and later essays.

TABLE VII.

Nature of idiom and the phrase.	EARLIER ESSAYS.		LATER ESSAYS.	
	Library.	Grammar.	Library.	Grammar.
Adverbial phrases formed by the collocation of a Preposition with a Noun or Adjective ..	6	12	54	26
'Phrasal verbs'—idiomatic collocation of verbs followed by Prepositions or Adverbs ..	28	23	96	47
Idiomatic connectives ..	5	3	11	6
Collocations formed by contrast of alternatives ..	1	0	1	1
Familiar comparisons ..	0	0	1	0
Figurative expressions ..	0	0	2	1
Emphatic expressions ..	0	0	2	0
Miscellaneous ..	10	8	32	13
TOTAL ..	50	46	199	94

The Library pupils, starting on their lingual career with about the same stock of idiom as the Grammar batch, have more than quadrupled their original store, while the Grammar pupils have only doubled their stock. The improvement shown by the Grammar pupils from 46 to 94 in familiarity with idiom may

perhaps be attributed to their study of text books. Assuming that the same opportunities for the Library pupils have contributed to an increase of their acquaintance with idiom two-fold, the excess over this normal acquisition may be attributed to the pupils' acquaintance with reading material in the Library classes.

Idiomatic expressions are of many kinds, but the IV Form pupils seem to be familiar, mostly with expressions of two sorts, viz., Adverbial phrases and 'phrasal' verbs, and their attainment in idiom at the end of a year's language study is also along the same lines. There has been slight improvement in connecting phrases, giving the students control over complex and compound sentence-structure. Idiomatic expressions involving the use of metaphors, proverbs and contrast evidently belong to an advanced stage of language development.

(iv) *Clause and sentence structure;*

'Good clause-structure,' says Boyd, 'implies rhythm and balance as well as verbal variety,' and good sentence structure implies a free and easy use of subordinate clauses. With a view to examine the nature of clause and sentence structure, an analysis was made of the frequency and kind of clauses and sentences in the essays. The table below presents the number of Complex and Compound sentences and clauses found in the essays;

TABLE VIII.

	EARLIER ESSAYS.		LATER ESSAYS.	
	Library.	Grammar.	Library.	Grammar.
Number of sentences used ..	720	761	1097	966
Number of subordinate clauses	96	91	252	193
Number of complex sentences	91	85	219	168
Number of compound sentences	59	54	169	93
<i>Average number of—</i>				
Clauses per essay ..	2'0	1'9	5'02	4'0
Complex sentences ..	1'9	1'8	4'6	3'5
Compound sentences ..	1'1	1'1	3'5	1'9

In the earlier essays most of the Compound sentences of both the groups are of a loose type, often times a garland of 'ands.' The structure of the Complex sentence is far better than that of the Compound sentence. There is every reason for this, since the coordinate connectives require higher processes of logical thought. There are very few complex-compound constructions in both the groups. On a study of subordinate clauses we

find that the most familiar of them is the Adverbial clause and the least familiar the Noun clause. Among Adverbial clauses the most frequent ones in order are those of time, place, reason and condition. Among Noun clauses the most frequent, and possibly the only kind familiar to the students, are those as the object of the verb. Noun clauses as the complement of the verb and as standing in apposition to a Noun or Pronoun, are hardly met with in the essays.

In the later essays, the pupils show better mastery over sentence structure. The Compound sentence, except in very few cases, has assumed a decidedly better form, and compound-complex forms are also in evidence. Added to it, some intelligent pupils of both the groups make effective use of the Exclamatory and the Verb-subject order as devices. As regards the distribution of subordinate clauses, the Adverbial clause tops the list again, while the Noun clause has not as yet made headway. The students seem to be more at home with the Adverbial than the Noun clause. About half of the Adverbial clauses used are those of time and the others in order of frequency are those of cause, condition, effect and place. Among Noun clauses the most familiar is again that as the object of a verb. The Library class shows familiarity with more kinds of Adverbial clauses than the Grammar one, but in the matter of Noun clauses both the groups are about the same level.

There is clear evidence to show that the Library work of the pupils has given them better control over sentence structure. They have increased their Complex sentences 2·5 times their original number and Compound sentences 2·8 times, while the Grammar batch has not exceeded twice its old record. They have written 1·5 times the number of sentences and 2·6 times the number of clauses they have used in their earlier essays.

In passing it may be remarked that while teaching analysis of sentences to the IV Form pupils, only the broad divisions of clause construction into Adverbial, Adjectival and Noun should be dealt with, reserving greater details for higher forms. Except the highly intelligent it is difficult to say whether the average pupils understand and appreciate the subtler types of clause construction.

(v) *Grammatical accuracy;*

In one of his investigations Prof. Symonds uses the term 'Correct usage' to mean those necessary elements of the mechanics of writing and speaking which serve as a frame work

for the expression of thought and emotion. One of the surest methods of ascertaining whether the pupils have attained mastery over correct usage is to analyse the errors of language committed by them in the essays. With this end in view, each essays was closely scrutinised for language errors, which were analysed under the categories of Verb, Article, Adverb, Vocabulary, Preposition, Agreement between Subject and Predicate, Number, Pronoun, Adjective and Conjunction. In the earlier essays the Library group committed 381 errors for 6395 words, and the Grammar group committed 422 errors for 7300 words. In the final essays the Library group had to its credit 816 errors for 10853 words, while the latter group had 930 errors for 10520 words. The table below gives the number of errors made by the two groups for 1000 words in the early as well as final essays.

TABLE IX.

Nature of the error.	NUMBER OF ERRORS FOR 1000 WORDS IN			
	EARLIER ESSAYS.		LATER ESSAYS.	
	Library.	Grammar.	Library.	Grammar.
<i>1. Verb—</i>				
Incomplete verb ..	2'2	1'1	1'8	3'5
Tense of the verb ..	2'5	2'4	3'4	6'5
Sequence of tense ..	2'2	5'2	7'4	5'0
Voice—Transitive and				
Intransitive verbs ..	2'6	2'4	2'3	2'0
The verb <i>will</i> ..	0'8	0'8	1'1	2'4
The verbs <i>may</i> and <i>can</i>	0'6	1'2	0'2	0'9
Infinitive ..	0	0'2	0'8	0'3
TOTAL ..	11'0	13'5	17'0	20'6
<i>2. Article—</i>				
Omission of the Def.				
Article ..	4'4	3'8	6'3	9'5
Omission of the Indef.				
Article ..	2'3	2'7	2'3	2'0
Unnecessary use of the				
D. A. ..	1'7	2'7	1'1	2'4
Unnecessary use of the				
I. A. ..	0'5	0'1	0'3	0'7
One article for the other	1'5	1'2	0'4	0'9
'a' for 'an' and				
<i>vice versa</i> ..	1	4	5	5
'one' for 'a' ..	0	0	0'2	0
TOTAL ..	10'5	10'9	11'1	16'0

Nature of the error.	NUMBER OF ERRORS FOR 1000 WORDS IN			
	EARLIER ESSAYS.		LATER ESSAYS.	
	Library.	Grammar.	Library.	Grammar
3. Vocabulary—				
Wrong derivatives ..	1'7	1'1	2'7	2'0
Absence of precision ..	5'0	3'6	7'3	6'8
Wrong word-groupings ..	'6	'9	1'3	2'0
Incorrect idiom ..	1'3	0'8	4'2	4'0
Formation of the genitive ..	0'1	1'4	0'9	0'7
TOTAL ..	8'7	7'8	16'4	15'5
4. Adverb—				
Wrong position of Adverb ..	7'8	5'5	5'2	6'4
Wrong use of Adverb ..	0'9	'8	2'4	2'2
Incorrect use of 'so' ..	2'6	2'7	0'8	1'4
TOTAL ..	11'3	9'0	8'4	10'0
5. Preposition—				
Used without necessity ..	1'4	0'7	1'6	2'0
Wrong Prepositions ..	3'6	3'9	5'5	5'6
Absence of Prepositions ..	1'5	2'3	2'3	2'2
Idiom ..	0'5	0	1'2	0'4
TOTAL ..	7'0	6'9	10'6	10'2
6. Agreement—				
Singular verb—Plural subject ..	2'3	2'3	0'8	2'4
Plural verb—Singular subject ..	1'4	0'7	0'6	0'6
The 'there is' sentence ..	2'2	1'2	0'4	0'8
TOTAL ..	6'0	4'2	1'8	3'6
7. Number—				
Wrong inflexions ..	0	0'5	0	'6
Wrong number with Nouns ..	'5	'3	0'4	1'8
Wrong number with Pronouns ..	0	0	'3	'4
Wrong number with Adjectives ..	'5	1'6	1'8	1'7
TOTAL ..	1'0	2'4	2'5	4'5

Nature of the error.	NUMBER OF ERRORS FOR 1000 WORDS IN			
	EARLIER ESSAYS.		LATER ESSAYS.	
	Library.	Grammar.	Library.	Grammar.
8. <i>Pronouns</i> —				
Omission of ..	0'5	0'0	0'7	1'5
Wrong relative Pronouns ..	0'3	0'1	0'4	0'6
No antecedent or remote ant. ..	0'3	0'1	1'2	1'0
Use of <i>all, they, etc.</i> ..	0'1	0'7	0'9	1'0
TOTAL ..	1'2	0'9	3'2	4'1
9. <i>Adjective</i> —				
Wrong use of <i>many, much</i> ..	0'6	0'3	0'	0'2
Degrees of comparison ..	0'1	0'9	1'1	1'7
Incorrect use of ..	1'3	0	0'6	0'4
TOTAL ..	2'0	1'2	1'7	2'3
10. <i>Conjunction</i> ..	0'5	0'4	1'1	0'9
GRAND TOTAL ..	58'9	57'2	73'8	87'9

A study of the above table reveals a number of significant facts and throws light on many problems pertaining to the teaching of English.

(1) The earlier essays reveal an almost negligible difference between the two groups, the difference in errors for 1000 words being only 1'7. More than 10 per cent of the errors in both the groups are under Verb, Adverb, Article, Preposition and Vocabulary. The Library group commits more than 3 errors for 1000 words under, omission of the Definite article, absence of precision in words, inappropriate prepositions, incorrect position of the Adverb and adverbial phrase. The Grammar group also commits more than 3 errors for 1000 words under all the above heads, plus under absence of sequence of tense. Thus a comparative study of the errors pertaining to the earlier essays shows that the two groups had about the same difficulties in formal language equipment.

(2) Let us now turn to the scores of the groups in their final essays. The errors have multiplied with the increase of vocabulary. The Library batch has increased its vocabulary by 82 per cent of its original possession and errors by 25'3 per cent, whereas the Grammar batch has increased its vocabulary by 48

per cent and its errors by 53·6 per cent. Comparing the performances we find that the Library pupils have committed in their final essays 14·9 errors more than in their earlier essays, whereas the grammar pupils have committed 30·7 errors more than in their earlier essays. Evidence is therefore not wanting to show that the grammar batch have not been showing as much improvement as the Library batch in the accuracy of their language consistent with their acquisition of vocabulary. An increase of vocabulary in the case of the library batch has not resulted in as proportionate an increase of grammatical errors as is evidenced in the case of the other group.

It may therefore be safely asserted that pupils who are provided opportunities for wide reading at school and at home under guidance write less incorrect English than those who have received tuition in grammar but are left to themselves in the matter of extra reading.

At the High School stage where the pupils are imbibing the principles of a new language, it seems as if there is a positive and direct relation between growth of vocabulary and increase of grammatical errors. The vocabulary of the pupils grows richer day by day, and unless the language forms peculiar to the foreign tongue are properly understood and assimilated by them, there is every danger of a further chaos in the pupils' grasp of the foreign language.

(b) *Language tests;*

A Language Test of the objective type, consisting of 56 incorrect expressions, illustrating various phases of grammatical skill, was administered to the groups both before and after the experiment, the duration of the test being one hour. The table below gives the relevant scores:

TABLE X.

		PRE-TEST.		LATER TEST.	
		Library.	Grammar.	Library.	Grammar.
Range	..	4—32	8—52	4—51	10—49
Mean	..	25'00	23'50	31'34	31'50
S.D.	..	8'4	9'6	10'8	8'76

In the pre-test, the difference of the two means is 1·5 points in favour of the Library group, a difference not at all significant. The Library group also shows slightly more homogeneity than the Grammar one. In the final test, the average performance of both the groups is practically the same, but the Grammar group shows

more homogeneity than the Library one—the reverse of what was observed in the early scores. This phenomenon was not unexpected, since the Library group had absolutely no grammar lessons during the year, while the other had not only systematically planned lessons in grammar but regular lesson-tests at the end of every topic. The latter group was in a sense being trained for such objective tests.

The difference between the two groups may also be studied on the basis of the Error Quotient. According to Stormzund and O'Shea, the Error Quotients (E. Q.) are determined by 'using the frequencies of error for an individual or for a group as a numerator of a fraction in which the denominator shall represent chances of error.' The E. Q. is thought by statisticians to be more reliable than the method of enumeration of mistakes, since it considers the number of mistakes in relation to the number of opportunities to commit mistakes.

The E. Q. was calculated thus: There were 48 pupils in the experimental group. Since the test contained 56 items, there were (48×56) or 2688 chances for this group to commit errors. But the number of errors actually made by the group in the initial essay was 1494. Hence the E. Q. is $1494/2688$ or 0.56. The E. Q. for the final test was also calculated in the same way. The table below gives E. Q.'s in the initial and final tests for both the groups and the amount of decrease per cent in E. Q. from initial to final tests.

TABLE XI.

Group.	E. Q. in initial test.	E. Q. in final test.	Decrease of E. Q. from initial to final test.	Per cent of decrease of E. Q.
Library ..	0.56	0.44	0.12	21.4
Grammar ..	0.57	0.44	0.13	22.8

The groups started with practically the same E. Q.'s and at the end of the year attained a uniform decrease in it. The difference of 1.4 per cent between the groups in the decrease of E. Q. from initial to final tests is hardly sufficient to bring out any reliable differences.

The outstanding fact revealed by the above data is that a batch of pupils who were trained in methods of library study did as well in a language test as another batch who had training in formal grammar. Study of library books as an alternative proposition to the studying of formal grammar does not seem to have in any demonstrable manner stood in the way of the

per cent and its errors by 53·6 per cent. Comparing the performances we find that the Library pupils have committed in their final essays 14·9 errors more than in their earlier essays, whereas the grammar pupils have committed 30·7 errors more than in their earlier essays. Evidence is therefore not wanting to show that the grammar batch have not been showing as much improvement as the Library batch in the accuracy of their language consistent with their acquisition of vocabulary. An increase of vocabulary in the case of the library batch has not resulted in as proportionate an increase of grammatical errors as is evidenced in the case of the other group.

It may therefore be safely asserted that pupils who are provided opportunities for wide reading at school and at home under guidance write less incorrect English than those who have received tuition in grammar but are left to themselves in the matter of extra reading.

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The outstanding fact revealed by the above data is that a batch of pupils who were trained in methods of library study did as well in a language test as another batch who had training in formal grammar. Study of library books as an alternative proposition to the studying of formal grammar does not seem to have in any demonstrable manner stood in the way of the

pupils' correct grasp of the fundamentals of language construction.

It was interesting to study the performance of the two groups in relation to their intellectual level, as revealed by intelligence tests. Each group was sub-divided into three batches, the below-average, the average and the above-average and their performance scores in the two language tests compare. The table below gives the mean performance of the batches in the pre-tests and final tests.

TABLE XII.

		MEAN PERFORMANCE OF THE BATCHES IN			
		INITIAL TEST.		FINAL TEST.	
		Library.	Grammar.	Library.	Grammar.
Below-average	..	17'5	17'0	22'0	26'0
Average	..	25'0	25'0	30'5	28'5
Above-average	..	33'6	32'0	39'5	39'5

There is observable in the pre-tests a uniform rise of 8 points from the below-average to the above-average. The different grades of intelligence in both the groups show almost identical performance before the commencement of the experiment. In the final tests, the above-average and average batches march practically abreast of each other. It is only the below-average pupil of the grammar class that has shown comparatively poor performance. It may be that under a library technique a below-average pupil, left to his own resources, takes more time to adjust himself to the new environment than the average ones. A library book at the outset may be an incomprehensible problem to him instead of being a source of pleasure. More systematic guidance on the individual instruction lines in methods of study and sympathetic diagnosis of difficulties may have been of considerable help in promoting his interests and in helping him to assimilate the principles of language construction. In all likelihood these pupils took a longer time to attain mastery over the mechanics of reading. And it is also highly probable that the low scores of this below-average group have acted as a considerable drag on the mean performance of the Library group.

(c) *Annual examination scores;*

Two papers in English are taken by pupils in their annual examination—one in texts and the other in essay, translation and general English. Leaving aside the former, which tests more the knowledge of the pupils in the texts concerned, the performance of the groups in the essay paper was compared. The mean

performance of the Library group was 12.34 (S.D. 3.56) and that of the Grammar group was 10.6 (S.D. 3.2). The difference is statistically significant enough to point out a real difference between the two performances. We have, however, to bear in mind that in the valuation of these papers the personal equation has a great part to play. This much could be safely asserted, that the Library batch has impressed the examiner better in its composition ability than the grammar one. The tone of their compositions seems to have produced a better effect on the examiner.

Oftentimes it so happens that an examiner in History values the pupils' papers as much for language as for historical facts and reasoning skill. With a view therefore to see whether general study of library books served the pupils in presenting facts of history, the performance of the groups in the History examination was compared. The mean score of the Library group was 19.82 (S.D. .0) while the mean score of the Grammar group was 14.32 (S.D. 6.0). On statistical computation the mean difference was found to be very highly significant. The attainment of the Library batch in History was decidedly superior to that of the Grammar batch.

SUMMARY OF RESULTS

1. Two batches of IV Form pupils, of about the same intellectual ability were compared for determining the relative difference in language ability between a course in Library work and instruction in formal grammar.

2. The Library batch:—

- (a) showed better fluency,
- (b) used a far larger number of substantives, and verbs in their compositions,
- (c) revealed improvement in verbs expressing volition and action,
- (d) acquired and used a larger stock of idiomatic expressions,
- (e) attained better mastery over complex and compound sentence structure, and
- (f) committed lesser number of grammatical errors in their compositions than the pupils of the Grammar batch.

3. The performance of the Library pupils in the Language test was as good as that of the Grammar batch, judged on the basis of their average performance and also per cent of decrease in E.Q.

4. The Library batch obtained highly significant marks in the Essay and History papers at the annual examination.

USE OF EDUCATIONAL FILMS.

BY

JAMES B. FRIZELL, City Education Officer.

[*A Report from Edinburgh Corporation Education Committee,
Edinburgh (Scotland)*].

Criticisms and Suggestions.

(1) *Quality of Films.*—There were many disappointments in choosing films from the mere titles as was so often necessary owing to the lack of a reliable and informatory catalogue. The nearest approach to teaching films were the biological subjects by the Gaumont-British Company. The films obtained from travel agencies were purely scenic. The films loaned by the Post Office Library were generally of the type known as background films. Many good films were spoilt by the inclusion of matter irrelevant to the main purpose of the film. In other cases the films were of less value owing to the inadequacy of the sub-titles and, in some cases, the complete absence of captions. The shots in some cases were too short to enable the average pupil to assimilate what was being demonstrated. The films in general lacked sufficient diagrams. The ideal film for school purposes should be logical, be pertinent, contain no cheap humorous incidents, and call for sustained effort on the part of the pupils for no longer than ten to twenty minutes. In regard to Geography, films illustrative of some geographical point would be most useful, e.g., rivers, mountains and coast-lines. In order that films of towns should be of geographical value the situation of the town should be shown and the occupations of the people, otherwise the film is only of scenic value. The lack of maps was apparent in many of the geographical films. A film map should not be too full of detail. The ordinary travel picture is too extravagant and diffuse for geographical teaching. Films showing the production of food and materials are admirable for school use. Many films attempted too much and in the large majority the action was too rapid. Photography was generally good although some of the films were obviously marred by usage. Gaumont-British Instructional Films provided the best series for school purposes. The Post Office Films came next in merit, more especially those dealing with British industrial and agricultural activities.

The following suggestions are proffered as absolute essentials in films meant to be used as aids in the teaching of Geography:—

- (i) Production under the guidance of someone with practical knowledge of the teaching of the subject.
- (ii) Full notes on the film for the use of the teacher.
- (iii) The amount of matter dealt with in one film should be strictly limited.
- (iv) There should be logical sequence.
- (v) Emphasis should be given to important features in the film by lengthening the shots at the appropriate places.
- (vi) Simple clear maps free from unnecessary detail should be freely used and the exact position of places shown immediately before they appear on the screen.
- (vii) Mechanical devices such as moving arrowheads (as used in the G.-B. film "Wheatlands of East Anglia") are of great value.
- (viii) Captions have a definite place in any school film. They should be concise, exact, and simple. They should appear long enough on the screen to be properly digested and appear immediately before the section of the film which they embrace.
- (ix) The rate of action of the film is of the utmost importance and this applies to maps as well as to the general run of the film. It is most important in the case of "close-ups."
- (x) The human element should be given much more prominence than was given in most of the films.

(2) *Supply of Films.*—It is obvious from the remarks of teachers that a sufficient number of suitable films is not yet to be had. Occasionally during the tests, films failed to arrive timeously at schools. The ideal is to have a supply of films in each school. Failing this, there must be either a library for a number of schools or, as a last resort, a central library in each education area if any real progress is to be secured. Educational

films will require to fit in with existing schemes of instruction and be definitely suitable for classwork. To ensure this teachers must be able to preview films and to procure films as and when required for purposes of illustration.

(3) *Projectors and Accessories.*—The apparatus generally worked very well. One school suggests that the size of picture shown could, with profit, have been somewhat larger and some of the teachers suggest that research should take place in regard to the best material for the manufacture of screens and as to the most suitable side for school use. It is, of course, of the utmost importance that there should be good delineation. It should be possible to stop the projector at any point in order to obtain a still picture of any feature requiring special emphasis or explanation. Some means must be devised for deadening the noise incidental to the running of machines. Every school should be provided with a projector but the cost of projectors should, if possible, be lower. The apparatus should be as substantial as possible.

(4) *Accommodation.*—It is obvious that makeshift accommodation for the exhibition of educational films in schools must be replaced by well-thought out permanent rooms designed for the use of modern aids. The efficiency of darkening rooms—unless daylight exhibition of films becomes possible—their ventilation and the position and comfort of seating, are all matters which will require to be inquired into carefully.

(5) *Mode of Using Films.*—Although much more experimental work will require to be done before the best methods of using school films can be definitely ascertained, there is unanimity of opinion in regard to the need for preparation of the ground. This took the shape either of a special lesson covering the subject matter of the film or, where co-ordination had been established between curriculum and film, by ensuring that the ordinary class-work had been thoroughly mastered by the pupils beforehand. Following upon the showing of the film there was in every case an opportunity for questions and discussion and for the amplification and emphasis of certain points and the clearing up of difficulties and wrong impressions. All the schools are unanimous that the ideal will be secured when the teacher is able to select films as and when required to illustrate the ordinary work of the class, just as maps and other illustrative material are used at the present time in the ordinary course of the work. They are all agreed, also, that a high degree of correlation of the contents of films with school syllabuses would give a greater value to the film.

Other Educational Film Work.

In addition to the use of educational films in class-room work the following related activities have taken place during the year:—

(1) *Mass Demonstrations.*—The Committee have been fortunate in securing several mass demonstrations of educational films. During January and November, 1935, the G.P.O. Film Unit gave a number of shows for intermediate and secondary school pupils. These covered both films dealing with the activities of that great public service department and others drawn from the Empire Library and dealing with commodities. In January and February, 1935, a film showing the various processes in the manufacture of cocoa and chocolate was displayed in primary and post primary schools by Messrs J. S. Fry and Sons, Ltd.

Mention might also be made here of the arrangements made by the Scottish Educational Sight and Sound Association (now the Scottish Educational Film Association) for Saturday forenoon shows of films suitable for school children. These shows are given during the winter and they might be regarded as an attempt to find clean, healthy amusement and instructional films for children.

(2) *Film Slides.*—During their investigation into the use of educational films, the Organising Committee became aware of the advent of the film slide lantern. A report on this matter was submitted to the Education Committee in October, 1934, and the Committee agreed to develop the use of this aid, which will, in time, displace in large measure the old optical lantern. A central collection of film slides is in process of formation in the City Education Department and all Post-Primary Schools have been supplied with lanterns. In the meantime, Primary Schools are having recourse to lanterns borrowed from the Education Department.

(3) *Co-ordination of Educational Film Activities.*—The control of developments in Scotland in connection with educational films is now on a definite basis. The following bodies are interested:—The British Film Institute, The Scottish Film Council, and The Scottish Educational Film Association. These three bodies are working in close co-operation. In particular, the viewing of educational films for use in schools has been delegated by the Film Council to the Educational Film Association. The Association intends to organise a branch in each education area of the country. It is, therefore, made easy for education committees to grant facilities to branches since they will consist

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almost entirely of members of their own teaching staff. Six branches including one in Edinburgh are already in existence, the aggregate membership being some 1,500 or roughly 5 per cent. of the teaching population of the country. Arrangements are being made for the viewing of educational films by study groups in each branch under the general control of the Film Council and the Film Institute. The Film Institute proposes to set up a central library of films and is at present compiling a reliable and authoritative catalogue of films. A convention has been signed by some thirty-eight countries, including Great Britain, for the free exchange of films of educational and cultural value, and the vouching of films for this purpose has been entrusted by the Board of Education to the Film Institute.

Reflections and Conclusions.

The tests are distinctly favourable to a further development of this modern aid in education. In this we shall only be following far behind other countries. The cinematograph film is being used extensively on the continent and in America, where the number of projectors in use can be counted in the thousands and tens of thousands. The chief difficulty in its development is the lack of sufficient suitable films, but supply will only come in response to intelligent and well-directed demand from the schools.

Teachers in general seem to express a preference for silent films but it is really too early to dogmatise. The price of sound projectors has hitherto put them beyond even the reach of experiment. The place of the sound film can only be assessed by actually trying sound films out in the same way as silent films have been used. Besides the conception of a sound film has changed radically and we must not think of the educational sound film in terms of the ordinary commercial cinema. In regard to such subjects as languages and music, the film would be useless without it. Film supply, both in regard to suitability, sufficiency and accessibility is now being dealt with systematically. Their sufficiency will depend upon the degree of encouragement that film producing companies receive. The building up of a national library and local libraries of films are matters that will require to be faced by education departments and education authorities. A great deal of research will require to be done in regard to projectors themselves and accessories such as the screen. Accommodation for the exhibition of films in schools will also necessitate careful investigation. These things can only be done by those engaged in the actual work of education in conjunction with con-

sultants and technicians acting for the cinematograph industry. The means for all this research and co-ordinated activity exists. What is now required is the active support of education authorities and the teaching profession. It is therefore recommended:—

- (1) That the Education Committee should increase their annual grant for the purpose of developing the use of the cinematograph in their schools to £200, or, alternatively, that a scheme on the lines of that for assisting the purchase of wireless receiving sets should be set up in connection with cinematograph projectors. Under this, each school desiring to develop this new medium would receive a monetary grant up to a specified limit towards the purchase of a projector. The machine thereafter would be the property of the education Committee under an obligation to maintain it in the future. The Committee would also make available the necessary accommodation and provide the supply of films. If this alternative is favoured, a further report as to an estimated cost of such a scheme will be submitted.
- (2) That facilities should be accorded to the Edinburgh Branch of the Scottish Educational Film Association in regard to accommodation for meetings and storage of apparatus and films in the City Education Department. The Committee should also encourage the teaching staff to support the Branch.
- (3) That the future control of tests and experimental work in connection with the use of films in the Corporation's school should be entrusted to the above Branch.
- (4) That the Education Committee should gradually acquire films of proved worth to form a nucleus of a library for the area. The necessary accommodation is already available in the City Education Department.
- (5) That the Education Committee should co-operate in any inquiries which are set afoot in regard to the formation of central libraries of educational films.
- (6) In all new schools a properly designed and equipped room for modern aids should be included. This would save expense of conversion later on.

- (7) In regard to the development of sound films, it is hoped with the co-operation of the Ministry of Labour to acquire a sound projector for use in the Junior Instruction Centres. This will enable preliminary investigations into this type of film to be made and also a moderate amount of work in selected Day Schools.

EDITORIAL NOTES

BY

D. P. KHATTRY

State Aid to University Education.

There is no gainsaying the fact that the Government aid to Universities in India is meagre compared to the financial support given by the governments of European countries to their universities. Government Grants to all the universities in India have been recently curtailed by the various provincial governments of the country. The axe of retrenchment has fallen heavily on them and instead of expanding and consolidating their activities they find it difficult to function normally. The Heads of education departments in most of the provinces do not seem to feel any sympathy for the claims advanced by the universities and consider them to be so many white elephants for which the tax payer has to bleed and other types of education have to starve. And as the allocation of grants depends mainly on the recommendations of these officials there is no wonder if the Government exhibit a tendency to treat the representation of Universities for financial support in a stepmotherly fashion. The Courts and Senates of the various universities feel strongly that their claims will not be considered with justice and impartiality unless some other agency is established to recommend and allocate grants to universities. Professor Amaranatha Jha of Allahabad University, in his Presidential Address to the University Education Section of the 11th All-India Educational Conference, at Nagpur, pleaded strongly for the establishment of a Universities Grants Committee, on the model of the one in Great Britain, to recommend grants to the Universities. There is great force in Professor Jha's suggestion as a Committee of experts would certainly be expected to adjudicate the claims of universities in a spirit of appreciation of the work done by them. It is refreshing to turn from the stagnating conditions prevailing in India to the flourishing finance of universities in Great Britain. The State grant-in-aid to the universities, now £1,830,000, is to be raised to £2,100,000 for each year of the next quinquennium, with a special additional increase of £150,000 for the first year of that period. This special grant is to enable the Universities Grants Committee, which is responsible for the distribution, to hold an adequate reserve which can be used for non-recurring

grants. Altogether the total sum to be made available to the Universities Grants Committee during the next five years will be £10,650,000 an increase of £1,500,000 as compared with that for the past quinquennium. It is to be further noted that the distribution of this considerable sum is left to the untrammelled discretion of the Universities Grants Committee. How we wish that our provincial governments could give adequate support to their universities as well!

Physical Education in India.

Recently there has been a good deal of propaganda in this country about Physical Education. Training Classes have been started and physical superintendents have been trained or imported from abroad. But in this hurry and bustle of doing something connected with the subject we have not paused to define its objectives. The result is there are numbers of systems running parallel to one another without meeting anywhere. The public are generally of opinion that physical education should certainly make athletes of our boys while the parents aver that it should reduce their Doctor's bills. The ordinary Indian teacher is busy with his own particular subject and dislikes to have anything to do with it. The sports master is only interested in the technique of games and sports and the Inspecting officers are generally satisfied if physical training courses produce good referees. There is no agreed syllabus of physical education common to India and there are very few departments of education who have framed definite syllabus for it. No two superintendents of physical education seem to agree upon anything with regard to their subject and the pupils take delight in shirking physical education classes. To define the objectives of physical education and to frame courses to suit the needs of pupils at every stage of their educational career is the greatest desideratum of our educational administration. Sporadic attempts at Conferences or training camps will not solve the problems of the subject. What is required is a definite programme or a drive for the whole of the country. We wonder if the Government of India or the Central Advisory Board of Education would take the initiative and hold a conference of all the experts to define the objectives and to draw up a programme acceptable to all the sections and types of population.

Technical Instruction in Schools.

This is a question that often disturbs the mental equilibrium of the present day educationists. The object of technical ins-

truction in schools is supposed to be to establish a close relation between school work and the industries requiring technical knowledge and ability. Is it desirable to give technical instruction to pupils in schools in order to fit them for a particular industrial career? Or should we impart technical instruction as an essential part of a general education so that whatever industrial career a pupil may adopt in future he may find it easy to do so? The former suggestion is being worked out by the introduction of subjects like metal work, book-binding, and spinning and weaving as optional subjects in the curricula of High School studies, but the latter one has not been tried at all. How to impart technical instruction as a component part of liberal education in schools is the problem in India. We may perhaps do so by introducing Handwork, Mechanics and Technical drawing as separate subjects or by making the syllabuses of Mathematics, Science and Drawing more comprehensive and utilitarian. The difficulty of schools is that the adoption of a subject by the pupils is not governed by his aptitudes but very often by external ends. And this difficulty is aggravated still by the paucity of decent industrial careers in the country. India is undergoing a change but the destination of the change cannot be visualised by the educationists. There is a good deal of groping in the dark and the introduction of technical instruction as a part of school education may also be considered to be a leap in the dark. Then there is the question of teachers. Are there competent teachers in the country capable of arousing and sustaining interest in technical instruction? The ordinary Indian businessman fights shy of high school education and thinks that the instincts of business are killed by high education. We are afraid that is due to the fact that there are many teachers who are devoid of imagination and at the same time do not take cognisance of the practical aspects of life. The introduction of technical instruction is meant to foster the business instincts of pupils and to make them capable of industrial careers. It certainly offers pupils something that is alive and big with potentialities.

Educational Films.

There can be no two opinions on the usefulness of educational films as aid to class room work. But these have not made much headway in the country. Voluntary experiments and private enterprise have done pioneer work. But the film in the classroom is still uncommon and is treated more like an entertainment than an educational apparatus. The chief obstacles to its popularisation are its costliness and the reluctance of the

educational administrators to sanction grants for it. The Heads of the education departments in India have more financial worries than they can cope with and they do not like to add to these by patronising educational films. Still something has to be done even with the meagre support of educational administrators. We suggest the formation of an Indian Educational Film Institute to experiment on educational films and to coordinate the various efforts made in this direction.

The Museum of Science and Industry.

We are indebted to the Scottish Educational Journal for the following interesting paragraph from "Nature" :—

"The New York City Museum of Science and Industry was formally opened on the evening February 11 in a novel manner. At 3-35 a.m. G.M.T. on February 12 (10-35 p.m. February 11, in New York) Sir William Bragg was seated in Faraday's old study at the Royal Institution before the table at which Faraday used to work; and he gave a short address to a distinguished gathering in the New York Museum, including Professor Albert Einstein, Dr. F. B. Jewett of the Bell Telephone Laboratories, and the Mayor of New York. The American listeners then heard Sir William strike a match, with which he lit an old candle set in a candle-stick of Faraday's time; in a few instance, the entrance hall of the New York Museum was flooded with the light of two rows of mercury vapour lamps. The means by which this feat was accomplished provides an interesting demonstration of one of the many marvellous attainments of modern applied science which have resulted from Faraday's pioneer work of more than a hundred years ago. When Sir William lit the candle, the light was incident on a photo-electric cell, and the resulting electrical impulse was amplified and transmitted over telephone lines to the Post Office trans-Atlantic radio station at Rugby. The signal passing over the radio link was received at Netrong, U.S.A., by the American Telephone and Telegraph Company's station, and then re-transmitted by telephone line to the New York Museum of Science and Industry, where it was made to light a Westinghouse lamp of fifty years ago. The light from this lamp was picked up by another photo electric cell, which in turn actuated the switches controlling the mercury vapour lamps flood-lighting the hall of the Museum."

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- (1) To act as an information Centre for all matters relating to Indian Education.
- (2) To encourage scientific investigation in educational sphere and to stimulate statistical enquiries or those relating to experimental projects.
- (3) To consolidate a public of those who, finding it impossible to be indifferent about the educational drift of India, believe that a concern for the health of educational criticism is immediately relevant to the political and economic urgencies of the time.
- (4) To provide a mouthpiece for Indian educational thinkers and researchers.
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MANAGING EDITOR:
D. P. KHATTRY



DECEMBER, 1936

ALL-INDIA FEDERATION OF
EDUCATIONAL ASSOCIATIONS

Post-Box 52, CAWNPORE

PRICE ANNAS EIGHT

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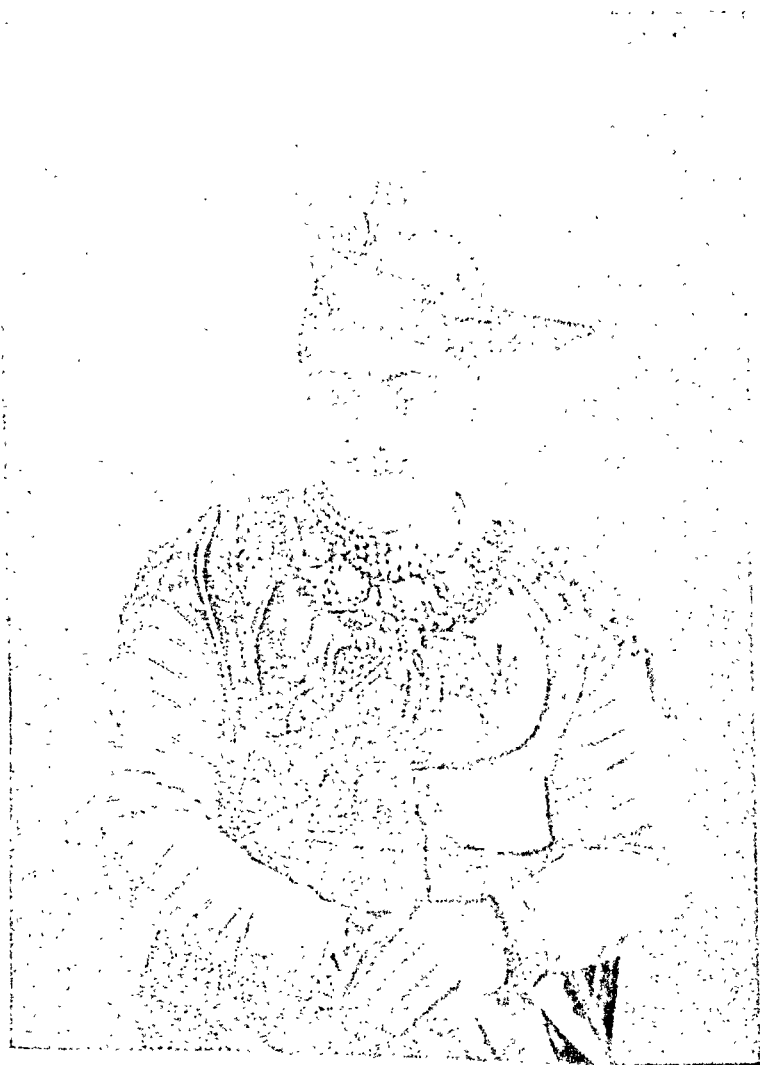
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Vol. I

DECEMBER 1936

No. 12

THE FUTURE IN EDUCATION

BY

Sir RICHARD LIVINGSTONE, M.A., Hon. D.Litt., Hon. LL.D.

[*Extract from the Presidential Address to Section L (Educational Science) of the British Association.*]

Our view of the future of education will depend on our view of education itself, but presumably we should all accept the following maxims: "Every individual has a threefold function in the world—to make a livelihood, to be a citizen and to be a man;" and "The duty of the State is to see that, so far as education is concerned, every one has the opportunity of performing these three functions." They vary in difficulty. It is easier to make a living than to have the intelligence, the knowledge and the disinterestedness which, ideally, every voter requires. But there is something more difficult still. The third function of education is to make men in the sense of Shakespeare's description of us: "What a piece of work is man! How noble in reason! How infinite in faculty! in form and moving how express and admirable! in action how like an angel! in apprehension how like a god! the beauty of the world! the paragon of animals!" The model to which education should work in every human being is a figure with a body, a character and a mind, each of which is capable of development towards an ideal: a body with its own perfection of physical development and fitness, of health, of skill of hand and precision of eye; a character, whose excellence lies in the great virtues; a mind capable of some perception of what the world is, and of what man has done and has been and may be. The final goal of education is not the capacity to earn one's bread or to live in a community, though these are included in it, but the making of human beings. Body, character and, in the widest sense, reason, make the man. A body undeveloped,

a character weak or debased, a mind unaware of the universe which we inhabit or of the achievements and ideals of mankind, proclaim the failure of education and walk the world as a standing reproach to it.

It follows that education, for all men and women, for the artisan and labourer as well as for the "educated classes," must find ample room for a liberal, cultural element. If its aim is to make men and citizens as well as bread-winners, to develop what Shakespeare calls beings of infinite capacity, and to help them to live intelligently in the world which they inhabit, then handicraft, technical skill, physical training belong to such an education, if the body is to achieve its perfection, and hand and eye to develop their powers; but so also does science, if we are to understand something of the physical universe; and so do literature, history, and, in an untechnical sense, philosophy. Some people may feel that the cultural subjects are unsuitable for the masses. That is a possible view. But to hold it is to accept the most ruthless of class systems, to say that men differ not only in degree but in kind, and that the majority are incapable of studies without which there can be no intelligent idea either of the universe or of the greatness of the human spirit. If a man is incapable of these studies, he is not, in the Shakespearean sense, a man. And if the majority of the electorate is incapable of them, we must either abandon democracy or resign ourselves to be governed by an electorate which can never know what a State should be. Ancient tradition and political instinct may preserve such a democracy from disaster, but not only will its stability be precarious, but its political and spiritual life will be poor. The bad film and the betting news will be its relaxation; the bad press its literature; passion, prejudice, the catchword and the slogan, will be its masters.

To this—and it is a danger to society as great as war, if less spectacular—humanistic studies are the great, perhaps the only, antidote. Here are written all the ideals and adventures of mankind. Literature contains the visions which the dreaming mind has conceived in solitude; history exhibits these visions applied to life and tested by fact.

How far does our education make men and citizens? The measure of its success defines our achievement, its shortcomings indicate what remains to be done. It has achieved much. Between the Forester Education Act of 1870 and the 1891 Act England organized elementary education. The Balfour Act of 1902 began a new era in the organization

of secondary education. In the early years of the twentieth century universities were created throughout the country. Since 1889 technical instruction has been developed thoroughly and effectively. That is a great achievement. In all these fields the problem has been faced and roughly solved. Improvements and developments will come; but the main lines have been well laid and are not likely to be altered.

So far, so good. But are English an educated nation?

An English officer in Italy during the War, having to give an instruction course to his men, set as a preliminary test a general paper in which occurred the question: "What do you know of any of the following persons?" The persons in the question are here set out in the order indicating which of them were most familiar to the candidates, and the figures after each name show the number of candidates who identified each person: Charles Peace 19, George Stephenson 16, Von Tirpitz 15, Nat Gould 14, C. B. Fry 11, Sir H. Plumer 9, Woodrow Wilson 8, Clemenceau 7, Michael Angelo 6, Sir R. Borden 6, Milton 4, Havelock Wilson 4, Lord Milner 2, Sir Henry Havelock 1.

There are several striking features in the result. Nineteen men had heard of Charles Peace to two who had heard of Lord Milner. Though the paper was set in the summer of 1918, when names like Wilson and Clemenceau were on every one's lips, there is a surprising ignorance of statesmen who played a decisive part in the War. Even the name of their own army commander, Sir Henry Plumer (as he then was) was unfamiliar to his men. Yet, as the unexpected knowledge of Michael Angelo shows, they were quite capable of "high-brow" interests. Six, at any rate, of the men had during the months spent in Italy learnt something of a great Italian. But the most interesting point for our purposes is the light thrown on the results of our elementary education. The examinees, men of a War-time regiment, were a fair sample of the average man. They were neither half-witted nor wholly ignorant. But their teachers had been the cheap press, their reading its sporting news and murder reports, their politics learnt from its headlines. The result is not adequate to an expenditure on elementary education of over £70,000,000.

That examination paper indicates the gap—the bottomless pit, I had almost said—in the English national education and the task of the next twenty years. We have left the vast majority of the population without any kind of liberal education. We have provided for the minority who attend secondary school and university. We have shown the rest a glimpse of the promised

land, and left them outside it. Aristotle may have gone too far when he said that the object of education was to help men to use their leisure rightly. But we have treated the majority as if they were to have no leisure, or as if it did not matter how they used what leisure they had. Art, music, science, literature were for the few. The rest were disinherited from some of the purest and highest pleasures. They might be machines or animals; men in the Shakespearean sense they could not be. That is the type of democracy with which we have been, and are, content.

It mattered, perhaps, the less in the past. When the working-man had no leisure, why educate him to use something that he would never have? The question barely arose. But today it is arising, and in the near future it is likely to be urgent. In 1900 most men had enough to do to earn a living. In 1940 or 1950 they will probably have the opportunity to be more than bread-winners. But if the leisure of the future is to be entirely devoted to the films and the dogs, civilization will not have gained much by it. Fifty years ago the employment of leisure was no problem for any but the well-to-do, who mostly wasted it. Today it is becoming a commonplace of education.

What, then, would you say of a nation which believed this, and which then acquiesced in the greater part of its people leaving school at the age of 14 and being thrown straight into the deep waters of life. For consider what a child has learnt by the age of 14. He can read and write and do arithmetic. He has made a beginning in many subjects, and received a training which enables him to use an opportunity of learning more. But of history, except in a superficial sense, he knows nothing; of the forces that affect the fortunes of the country, which as a voter he will help to determine, he knows nothing; economics, historical traditions, political theories are a closed mystery to him; he will have opened the great book of literature but he has had little time to turn its pages; of science he is even more ignorant. The task of the future is clear. It is to meet the needs of those who now leave school at 14, 15, or 16, and then say farewell to education for ever. For them we have done practically nothing. The task of the future, I repeat, is to deal with this, our great educational scandal.

Before I make some practical proposals for its removal, I should like to suggest certain principles which we must observe if our efforts are to be successful, and to which little attention has hitherto been paid. They apply to all forms of education except the elementary stage, and some of the weaknesses of our existing system are due to their being overlooked. The first of

these principles is that education must be adjusted not only to the natural capacities of the pupil but also to the stage of development which his brain has reached; that certain forms of study are appropriate to certain ages. That is a platitude. What need then to stress a principle which every one accepts. Yet, if accepted, is it remembered by an age which has acquiesced in the idea that most of the population should leave school at 14, and is now comforted by the thought that in future they may not leave it till a year later? At the age of 14 or 15 the mind cannot cope with, if it can conceive, the subjects which compose a liberal education and are vital to the citizen. A boy reads literature—*Hamlet* or *King Lear*—and should read them. But what can the profound scepticisms of *Hamlet*, the passion and agony of *Lear* mean to him? He reads history. Can he form a true conception of Charles and Cromwell, Bismarck and Napoleon III? At 18 we may scan the surface of history and literature, but we cannot see below it. Still more does this apply to the political questions on which an elector has to express an opinion. Unless you believe that these subjects are not meant for the masses and that the voter needs no further education for his duty than experience of life, the newspapers, and the speeches of political candidates, you are admitting the absurdity of an education which stops at 14 or 15.

I have been urging the truism that if we wish to teach a subject, we must teach it at an age when the mind can digest it. Otherwise we shall be like mothers who feed their babies on beans and bacon. But there is another principle, if not more important, even more commonly ignored. The fruitfulness of education, at least in some subjects, depends on experience of life. That is true of the majority of the subjects which are most important to us as men and citizens—literature, philosophy, history, and politics. We may study them in books and enjoy them; we shall not appreciate their full significance till we have seen enough of life to have met the things which historians, philosophers, and poets are talking about. That is where the so-called humanistic subjects differ profoundly from science and mathematics. Physical science and mathematics need no experience of life to be understood. Their laws are independent of time and place, of human nature,

“Based on the crystalline sea

Of thought and its eternity.”

For their comprehension a mind sufficiently clear and powerful to grasp them is required; knowledge of life and of the world

is unnecessary. Hence the child mathematical genius; hence Mozart writing a concerto and playing in the Hall of Salzburg University at the age of 5. It is doubtless rare to find the mind sufficiently adult at an early age for such achievements. But, given precocious mental development, the grasp of these abstract relations, whether of number or harmony, presents no difficulties. But such infant prodigies are not found in historical or literary studies. It is necessary to know life itself, to have seen something of human nature, before either achievement or understanding in these fields is possible.

I am here raising a question which I have no time to discuss, but which needs more discussion than it gets. What *does* a pupil of the age of 14, 15, 16, 17 get from the study of history, for instance? In secondary schools it is a favourite subject for specialization after the School Certificate. How much of it can a schoolboy grasp? I suspect that the right answer is suggested by the comment of an examiner on the work of a member of an "economics sixth form" at a public school. "These boys are excellently taught and interested in the subject; they read and reproduce the best books persuasively; and they have no real understanding of most of it, because they do not know at first hand the subject-matter which it studies." "They have the appearance of wisdom but not its reality," as Plato said of these who absorb information from books without digesting it.

However this may be, if we accept the two principles which I have been stressing and agree that a certain maturity of mind is necessary for humanistic studies and that full understanding of them is impossible without experience of life, some practical conclusions follow. The first is that an education which ends at the age of 14 is not education at all. It might be plausibly argued that nearly all the money spent on elementary education is wasted, because the system is, on the face of it, absurd. If you taught a child the letters of the alphabet and then stopped, you would probably consider that you had thrown time away in teaching him the ABC. Yet that is what we do in our elementary education. Elementary education is not complete in itself. It is preparatory. It prepares the pupil to go on to something else, and puts his foot on the first step of the ladder of knowledge. But in fact the vast majority go on to nothing else, they never climb higher on the ladder than the first step.

The chief uses of our present elementary system are to enable a minority to proceed to further education, and the rest to read the *Daily Mail*, *Express*, and *Herald*. I am not criticizing our elementary schools or their teachers, or denying the

necessity of elementary education for all. But unless it leads on to something else, it is as useful as a ladder which has no rungs beyond one or two at its bottom or as a railway from London to Blackpool which ends at Bletchley. To cease education at 14 is as unnatural as to die at 14. The one is physical, the other intellectual, death.

But the defects of our present system will not be remedied by raising the school age to 15, or even to 16. Death at these ages is still premature. The pupil will still be unripe for the studies without which an intelligent democracy cannot be created. I am not arguing against the raising of the school age. It may help our economic difficulties by reducing the supply of children in the labour market. It will keep children longer under influences of discipline and guidance with which they can ill dispense at 14. But the value of the raised school age is moral and economic rather than intellectual. The mind will gain something from it. The character will gain more than the mind. Even at 16 intellectual education, in any but a quite elementary sense, is only about to begin. Nobody who has seen the results of compulsory education to the age of 16 in the U.S.A. will be under the delusion that it produces an educated nation. If they compare these results with those obtained in France, where education is compulsory only till the age of 13, they will be still further disillusioned about the intellectual advantages gained by raising the school age. If such a change is preparatory to an education continued into the adult years, well and good; if not, it will leave our problem still unsolved. What is the solution?

It will not be found in secondary education, about which this age is, I think, over-credulous. The hard fight for its development has caused us to exaggerate what it can do. We must keep our faith in it, but temper faith with scepticism. But I doubt if any candid person, who has been a teacher or a pupil in a secondary school, feels that the returns correspond to the labour, time, and money spent. In every point except the economic one adult education has the advantage over secondary education. It is given to students, who desire it, who have the mental development to receive it, and who have the experience of life necessary to value and interpret it; whereas secondary education is given to pupils whose faculties are not fully developed, and who have not seen enough of life fully to comprehend what education is or what it can do for them. Secondary education will always be necessary for the small class who are capable of high achievement in mathematics, science, historical or literary

study. It is so firmly established in our national system that its position is not likely to be weakened. But it would be well if we became less confident that the best thing for any boy who can afford it is to stay at school till 18, and if we realized that the education of the masses can never be achieved through secondary education.

What, then, should we do? If we lived in Utopia and could reconstruct education without regard either to its past evolution or its present condition or the needs of the practical world, the ideal plan might be for every one to leave school at 15, and pass into a system, where a part of the week was allotted to school, part to earning the living in some practical occupation, the proportions of each varying with the intellectual abilities of the pupil and the demands of the subjects which he was studying. Such a contact with the practical world would both sharpen the appreciation of the value and purpose of education, and, especially in the humanistic subjects, make their real meaning far more intelligible. Theory would be illuminated by practice, and practice by theory. At present the two are nearly always divorced. We lead a life of action without thought; or we think in a vacuum, without contact with the realities and problems of the world.

A revolution of this kind could be made in a Platonic—or a Communist—state. It is impossible in our own. The small section of the community which proceeds through the secondary school, and thence, reduced in numbers, to a university degree, will continue to follow that beaten path. Their studies will still suffer from ignorance of life.

Meanwhile there remains the problem of the greater part of the nation, who in future will leave school at 14 or 15. Unless we establish a compulsory part-time continuation system which will carry them on to 18, the education of the earlier years of the youth of the nation will still be largely wasted. If we can establish such a system, they will remain in contact with those subjects to the rudiments of which their elementary education has introduced them, carrying them on to an age when the mind is growing sufficiently mature to begin to appreciate their value and grasp their meaning. Our next step, therefore, should be to retain those who leave school before the age of 18 under some educational control—not involving whole-time school attendance—to that age. We shall thus escape their abrupt and untimely expulsion from educational influences, and we shall take them to the threshold of adult education, where the solution of our educational problem must be found.

Much has been talked, and something has been done, in adult education. Its great success in Britain is the Workers' Educational Association, whose history shows what a clear aim, pursued with faith and wisdom, can create in a region without form and void. In 1935 there were 59,000 students in W.E.A. classes. The figure is remarkable, till we remember that there are 43,000,000 in this island, and that the crowd at a Cup-tie Final is twice as large. The W.E.A. is not to blame for that; nor, indeed, are the masses. It provided for their intelligentsia, and wisely concentrated on this need, instead of frustrating its own work by pursuing a variety of inconsistent aims. But necessarily it has left untouched the vast mass of the population. "A liberal estimate gives 500,000 adults at the very most as the total influenced in any direct way by any kind of organized educational activity." If so, here is a sparsely populated territory, like America before the pioneers crossed the Alleghanies, with territories of unexplored wealth waiting to be cultivated.

It may of course be true that the vast mass are not only untouched but untouchable, destined for ever to be the helots of the nation, exiles by nature from all but the outermost court of education. We should hesitate to adopt so pessimistic a conclusion. But we might feel that it was true if the experience of Denmark had not shown it to be false. I have no time to dwell on the Danish Folk High School. Sufficient to remember that 30 per cent of the small farmer and working-class population in that country attend, voluntarily and in part at their own expense, these adult schools, where the course lasts for some five months, and the education is humanistic in the sense that it is neither technical nor utilitarian. The Danes have been successful with the very classes with whom we have failed—those for whom the W.E.A. does not provide. If they are capable of this, why not we?

My concern is to urge the indispensability of adult education, not to produce a programme of it. This would be a fitting work for the Consultative Committee, which has done so much to shape the earlier stages of national education.

I believe that the Danes have a better understanding of the technique of the education of the average man. We have taken too narrow and rigid a view of it. Education for the masses has been conceived as an extension of the existing higher education to the working man. That was excellent for the intelligentsia of the working class, but for the majority it was too academic, too "high-brow." The Extension Movement and the W.E.A. have carried university studies and methods to a wider public. So

far, so good. They reached a certain public, and gave it something which it needed and was capable of assimilating. But in so doing they limited themselves. Invaluable as their subjects and methods were, they pleased not the million; 'twas caviare to the general. But the general, the million, need food no less than the *élite*; and in giving it their tastes and digestions must be considered. To nourish them we must enlarge our conception of adult education. Music, drama, handicraft, gardening, and many other subjects are a part of it no less than history, politics, science, and literature.

The festivals, held so successfully in the small towns of Ulster, where crowded audiences come to listen not only to musical competitions but to verse-speaking, show what a large public can be interested by such things; nor is it only in the houses of the educated that the symphony concerts of the B.B.C. are listened to with delight. Subjects like these may well take a large place in the adult education of to-morrow. Not that the academic, book, subjects will be absent. But they, too, may take a rather different form. Studies of the W.E.A. type will continue. But for the ordinary man, history and literature need to be treated differently. They must be brought into connection with his outlook, interests, mind. History as the Bible conceives it or as Herodotus conceived it, rather than as Thucydides or Acton or Ranke or even Macaulay and Gibbon conceived it: history, not as a study of economic laws or high policy, but as concrete moral philosophy, as scenes from the most romantic of all dramas splendidly staged and greatly acted, as a study of human nature as its highest reach and lowest descent. It is difficult for us, disciplined in different methods, to accustom ourselves to such conceptions; and one of the reasons perhaps why so little progress has been made in adult education is that the teachers have mostly been men with honours degrees who brought to their work the methods and outlook of their own education. At any rate, whoever the teachers are, they need to look elsewhere for models than to W.E.A. Classes and Extension Lectures. If we are feeling after adult education for the million, we may be helped by studying the Women's Institutes. That is an institution which embraces almost every type of person. You will find in them domestic servants, cottagers', doctors', landowners' wives, farmers' daughters, the village postmistress, the village schoolmistress.

For adult education to be successful, the intellectual digestion of the masses must be studied. I also think that we shall not succeed, unless—again following the Danes—we make

our adult education more social. . Even in education man remains a social animal. Consider how often education has burned most brightly at a common hearth, where men gathered together in company to warm their hands at its flame: in antiquity, Socrates in the market-place and gymnasium, the great classical schools of the Academy, the Lyceum, the Stoa, the Museum of Alexandria; in the Middle Ages, the universities, culminating in the residential university, recognized, at least in the Anglo-Saxon world, as their ideal form; in our own day, the Danish Folk High School and its descendants. These examples may teach us something. No doubt the lamp of wisdom can burn in solitary shrines and even in dismal lecture halls. But for the many its right place is in the simple but pleasant buildings of a Danish High School, with its gardens, its pictures, its music, its corporate life. Few Women's Institutes are so well housed, but there is in them that social, corporate element which exists in a residential university and which both educates and makes education attractive. Here also this country has the germ of the future in summer schools, and in such institutions as Woodbroke, Fircroft, Coleg Harlech, and Newbattle. These are pointers to the adult education of to-morrow.

DECAY OF ADVANCED LEARNING IN INDIA

BY

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I am not disputing here the increasing desire for learning which is visible in our country. Nor am I going to underrate the statistics of growth of numbers of scholars, schools, colleges and other educational institutions which are given in our educational reports. Further, I do not disbelieve in the intellectual ability of our first class students and scholars. I am here chiefly concerned with the present state of our advanced learning and scholarship, especially with the conditions in our colleges and universities which are expected to promote it. These institutions are primarily associations of scholars and teachers engaged in acquiring, communicating and advancing knowledge and pursuing in a liberal spirit the various sciences which are connected with our life and environment. This work of advanced learning is done by encouraging and inspiring a succession of great scholars, both students and professors, to live amicably and intimately in our educational institutions and to produce not merely a community of students and professors, but what is more important, a community of learning where knowledge and wisdom are made to harmonise and to help humanity. Our higher institutions are to be not merely reservoirs of intellectual forces but active intellectual centers where knowledge is examined co-operatively by a love of severe and sustained thinking and advanced by original investigation and research. This can only be done adequately in the atmosphere of complete freedom—freedom of research and freedom of teaching—and by a group of earnest students and teachers of superior mental endowments possessing no other paltry ambitions, and undertaking no other activities than advancement of real learning. Universities should be centers where there is a clearer consciousness of the problems of thought and conduct than is found elsewhere. It can be only done by a community of superior students and superior professors, and not by associations where there is a fetish of numbers in the case of students and a fetish of extra-academic activities in the case of teachers. The problem of the superior student as distinguished from the mediocre or average student

is not at all solved in our colleges and universities. Our indiscriminate and large admissions, our mass lectures, our innumerable lectures, our large classes, our text-books and plethora of notes and note-books, our want of personal contact and tutorial guidance, our insistence on attendance but not on home or library work, our lower standards of examination, are all a danger to the student community as a whole, and especially to the superior class of students, who require better guidance and more freedom to give their best to the training of their mind and to the cause of advanced learning.

There are a number of external as well as internal difficulties in the promotion of advanced learning in our higher institutions. The external ones may be enumerated, firstly, as those created by state interference in their freedom of teaching and thought and by state refusal to finance their needs fully in certain branches of learning and equipment; secondly, as those enhanced by a conflict of educational ideals between cultural and utilitarian advocates; thirdly, as those generated by the rise of unemployment amongst educated classes and the consequent development of public apathy towards higher education; and lastly, as those caused by attacks of national, religious and technical educationists. I am however not dealing with them here. The internal obstacles are more important from my point of view as they affect the very foundation, conception and organisation of our higher educational institutions and are therefore a great danger to our culture and learning. It is the training received, the knowledge tested and accumulated, and the wisdom and discipline gained and developed here, on which depend our higher citizenship and cultural life. The internal evils are mostly found in the organisation of the academic life and other activities of our institutions and in the character of our students and teachers.

Proper academic life depends on a number of factors. Educational motive must be dominant in such institutions. It means not only a large amount of freedom of teaching and a large amount of leisure for research, but a definite abandonment of economic and political motives in the organisation of their life, appointment of their teachers and admission of their students. Teachers are not to be treated as mere wage-earners and students as visitors their life being regimented and controlled by principals and wardens to suit their personal tastes and whims of politics, discipline, and amusement.

The fetish of numbers in our higher institutions is the greatest evil which is ruining our advanced learning. The only

value it seems to possess is the financial. Even that is more than doubtful. More students require more adequate equipment, accommodation and teaching staff. These institutions are not to be treated as temples where people crowd, give offerings, have darshans of gods and go away, or as dharmshalas where they stay free, feed and depart without any feeling of responsibility. They have undertaken the responsibility of properly training the student, of stimulating in him independent thinking, of developing in him a sense of discrimination and values and of creating in him a desire for the pursuit of higher knowledge. If they cannot do this up to a certain high standard they have no right to exist or to admit more students than their equipment, accommodation and staff justify. They are not those adult education centers where every one who wants to boast of his college education and to deceive the public by his degree is to be admitted. The greater evil however underlying this quantitative standard is the harm done to advanced learning by the indiscriminate admission of students really unfit for higher education. The better student suffers in all ways under such standards as bad coin drives away the good, or as the bad mango spoils the atmosphere in which it is placed. The standard of teaching and examination deteriorates in order to have larger percentages of passes and to suit the pupils of lower intelligence and ability. The superior student loses his interest in the lectures delivered as they cannot be stimulating to him. He becomes inattentive and lethargic. The professor having to adopt lower standards in teaching does not feel urged to exert himself and to attract their higher intelligence. Consequently, the keenness and stimulus of intellectual atmosphere are absent. Large classes again do not and cannot bring teachers in contact with students. Tuition classes, personal contact and attention are impossible. The large number of periods a student has to attend and a professor has to teach do not leave freedom and leisure for both to do personal thinking and work either at home, or in the hostel or library. There is no additional reading. There is no intensive thinking. There is no exact and informed writing. Students hardly get any piece of intellectual work to be done by themselves under the guidance of their teachers. Really speaking there should be less stress upon lectures and more work in laboratories, libraries, and at home or in the hostel. Students must be encouraged to help themselves and be freed from a lot of routine lectures day after day. Teachers must be set free from over-lecturing and must be free to help students by guidance in their individual efforts.

Our class lecture system is very monotonous and uninspiring. Think of students attending about four or five lectures daily and a teacher lecturing three periods or more every day. It is abominable as a piece of educational method and psychology. It helps no one ultimately. It does not help the better student as it wastes his time and energy. It does not help the average student as he is too dull to bear this burden of information and knowledge poured on him for five hours a day. There is no interchange of ideas, awakening and training of the mind, or understanding and applying of a method of study. The lecture system really insulates the student from the teacher. There is no direct contact of mind with mind, of doubt and desire to know it with knowledge and desire to impart it. There is no discussion and understanding of the method of arriving at conclusions or of finding out new problems for study and solution. A good student requires to be trusted to do his work and to educate himself.

Overteaching of students is the glaring defect of our universities in general. It tends to continue in the university or college the methods and mentality of the school, treating the student still as a schoolboy, when he should be rather trained to exercise his own intelligence and freedom of mind, to make the best of himself by his own efforts under guidance. There should be no excessive care taken of students. Excessive teaching is also a waste on the average student. His grasping power, his capacity for assimilation and for intellectual response are small.

I think the main defect of our teaching system is that our grown up students are considered as children who cannot learn more than what the teacher says or dictates in the class room. The result is that the student is accustomed not to work for himself, but only to attend lectures. He is never active but always passive. Moreover, he gets accustomed to memorise his notes or text-books at the end of the year, only for passing the examination. It is our duty to free intelligent students from restrictions of the routine and discipline of a system badly designed for average minds and school children, and to create in them a sense of individual responsibility for their own learning and future. Otherwise a low type of students who want to cheat in payment of their dues, in attending lectures, in doing writing and reading work, in borrowing books, in observing the necessary discipline, in appearing at examinations, and taking part in sports and games has developed. This type affects and spoils the college atmosphere and the better student.

In addition to this, the distracting influences which are increasing inside and roundabout the university are making a real student's life nearly impossible. There is a lot of extramural activities going on in our educational centers, out of all proportion to the educational interests of a student. They have softening and devitalising influences on his character. His mind and morals become unsteady and distracted, and not determined and disciplined to achieve something higher in life. In this atmosphere no education for scholarship, leadership or citizenship is possible. Two of the greatest distractions of our students are political and sensual or recreational. The want of identity of political ideals between the students and the authorities of educational institutions often vitiates their free atmosphere and leads to students' excessive diversion in external political activities. The excessive emphasis in modern times on artistic and theatrical aspects of life, the growth of various methods of sensual amusements and the undue freedom given and tolerance shown to students' unguided propensities by modern educationists have taken away the heart of our weak, soft and emotional students from the university as a place of higher education and training and made it a place more of social activities, sensual amusements and enjoyments in the name of culture, arts, or general education and fashion. The result is decidedly baneful. They come to know, as it were, 'the less and less of more and more,' instead of 'the more and more of less and less,' till a time comes when they know practically 'nothing of everything.'

One another fault which is traceable in our universities is the motive of expansion and multiplication at the cost of solid growth and specialisation. This leads to the lowering of efficiency, high standard, and real work in every department of knowledge for want of full equipment, good teachers and able students. The products of such institutions receive no welcome where there is real competition, and no favouritism in award of jobs or filling of posts.

Lastly, we must have teachers who really feel responsible for the preservation and promotion of advanced learning. Every university teacher should have security of tenure and academic freedom and should be engaged in teaching and research. He should have sufficient leisure and energy to know what has been or is being done in his subject. In his case merely skill in teaching is not important. He must possess an up-to-date knowledge of his subject and a keenness in knowing what is being done in it and what is to be done with it. This, however, becomes impossible for those who are overworked and get exhausted by too

much teaching. Hence there is no progress in their knowledge and they have to depend on good text-books without doing any independent study, observation or experiment of their own. This is the greatest danger to advanced knowledge in our colleges and universities, where a crowd of old fashioned schoolmasters are passing as professors, possessing the old school ideology of having a large number of lectures, big classes, compulsory attendance, and dictation of notes for memorising and examination. Teachers have really to advance the boundaries of knowledge and the scope of human wisdom. They should not therefore be merely teachers but also be good investigators. They must inspire others with their spirit of research, advanced knowledge and wisdom. In every university centre there must always be maintained and encouraged some exceptionable scholars of the highest class who would by their example, character and achievements inspire the superior students along with other admirable teachers who can make available the knowledge already acquired and can stimulate the desire for learning.

The teacher must himself possess a passion for learning. Otherwise a university becomes a high school if its work is not dominated and impelled by such teachers of great repute and learning. Unless the standards of education, academic freedom and scholarship are maintained high, our colleges and universities will become infested by mediocre and unfit students and over-worked and aimless teachers who would never contribute anything to advanced learning or carry on its torch of wisdom and search.

THE WESTERN INFLUENCES ON THE EDUCATION IN JAPAN

BY

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School Education in Japan developed most remarkably during the Tokugawa Period (1603—1867) when many educational institutions (established by the feudal lords) and private commoners schools were extended throughout the country. The nation was closed during this period to foreigners by the Seclusion Policy, with the exception of the Hollanders who engaged in trade with us. We cannot, therefore, find any relation between Japan and the West concerning its educational system.

Free intercourse between the nations was resumed after the Meiji Restoration (1867) and as the life and culture of the country became modernized, the educational systems of the Occident were referred to, so that I would like to outline the extent of the relation which England, France, Germany, and other countries had with Japan.

To begin with, the English educational situation was the first to be introduced into our country from the educational systems of the West. Yukichi Fukuzawa, who had travelled extensively through many countries and who had studied in both Europe and America, especially in England, inspired modern educational ideas in the minds of our people. At that time he spoke of the English schools and advocated the practical ideas which he obtained while there.

Through the advocacy of this pioneer the modern educational thought in our land, which had reached the dawn of a new era, received many suggestions from England. The reforms in school education that were effected since the Fifteenth Year of Meiji have a common under-current of such modernized educational ideas. It is due to this idea, I think, that writings by Spencer, Bain, and others concerning education were widely read.

In the Fifth Year of Meiji (1872) the educational system was reorganized and a unified system of school education was put into practice. In this change we referred to France for the framework of this system and to America for its internal organization.

In other words we remodelled our system of education through a uniform centralized school administration by which the whole country was divided into several districts in each of which was placed a university and below which elementary and middle schools were established. In comparing the educational systems of the various countries to decide upon a plan at the time, the French System was thought to be the most advanced and most systematic.

In organizing schools according to this system, we were aided by American Education. In other words, David Murray, who was engaged as superintendent of the educational department, directed our school administration. M. M. Scott who taught elementary teaching methods was given the position for the training of teachers. Fujimaro Tanaka who had then an important post in the *Department of Education*, went abroad to investigate the educational system in Europe and America and took special interest in American Education.

With Murray he reorganized the method of education and promulgated the Education Act in the Twelfth Year of Meiji (1879). This Act aimed to remove the former centralized policy and leave to the local authorities the freedom of establishing or abolishing the schools. But it was not long before this Act was removed, for the people at large were not sufficiently advanced to make use of this school system according to such a progressive policy.

Meanwhile American school text-books were translated for the use of the Japanese Schools and for a better understanding of Western education, books on school education were also translated, especially these of D. P. Page and J. J. Johnson, which were widely read. Furthermore, the Pestalozzian movement of Oswego in America introduced the object teaching methods into our country.

Later in the Nineteenth Year of Meiji (1886) a reform of the school education system was carried out. This was planned by the Minister of Education, Arinori Mori, who first established the Imperial University and improved the methods in the elementary, middle, and normal schools. In those days Japanese politics, thought, and culture were greatly influenced by Germany.

The school laws of Prussia, Saxony, and other provinces of Germany were frequently referred to. Both the definition and aim of elementary education provided in the first article of the Elementary Education Act and the conception of higher common education as related to the middle school, refer to the educational ideas of Germany.

Thus at the end of the Nineteenth Century we modernized our school organization in close and intimate relations with Western nations. We have developed this modern system and now have it in operation on a tremendous scale. In the process of development the experiences and ideas of Western countries in education are constantly compared and studied, and every effort has been exerted to improve this system.

THE TRAGEDY OF ERRORS

BY

ORIN EUGUENE PORE,

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I picked a sprig of bramble
From a florist's rubbish pile
And planted it, half doubtingly,
Beside my garden stile.
For months, I hoed and sprayed, in vain;
Then left it for a thorn.
When I next viewed that barren bush,
A rare rose had been born.

We often judge our fellowmen
By avenues and creeds
And stupidly neglect to note
Their modest, golden deeds;
Yet unseen hands, in life's routine,
Supply our biggest needs.

We give our children abstract tasks
And claim to educate
By teaching useless facts and rules
And doctrines out of date.
The nonconformist reaps our wrath.
We damn and excommunicate.
But hosts, the schools once rated small,
Society now calls the great.

—*Education, Boston.*

REMODELLING OF THE LAW COURSE IN THE UNIVERSITIES

BY

R. J. KOLHEKAR,

Hingenghat.

At present in all the Indian Universities, admission to the degree in law has graduation as a condition precedent. Graduates alone—in almost all branches except luckily in medicine and Engineering—are admitted to LL.B. Degree Examination. This in fact is an anomaly. After graduation, for which a student is required to spend four years, the student, who desires to enter legal profession, has got only two years at his disposal to finish his studies in law which he has to finish hurriedly and manage to get a pass at the examination to enable him to practise at the bar.

To my mind it has always been, and it still is, a great puzzle, to find, that graduation, to this day, is a condition precedent, for admission to the LL.B. Degree Examination. As a matter of fact, for study of Law, which is so voluminous, two years' time is really a very short period. The Law course, at present, is finished in such a haste that the instruction received during their course by the students, is practically of very little—I should say—of no use to them in their profession. A Law graduate getting in the profession is all at sea and has not got the least practical knowledge essential for his profession. He is not in a position to tackle a case, if fortunately he gets one, without the help either of his senior brother-practitioner or very often of his own clerk who is well acquainted with the routine of the profession. Knowledge of routine apart, he is also not in a position to make use of the principles of law (procedural, and substantive) which are so carelessly and vaguely assimilated by him when at College—his only object being to secure a pass at the Examination which is more or less a matter of tact.

This shows that for study of law two years are insufficient. During the short span of two years it is not possible to impart any practical instruction to the budding lawyers, whose lot is to learn the routine and other things, connected with practice, by experience at the bar and very often at the cost of their clients.

Admitting that fairly good knowledge is necessary for understanding the intricacies of Law and very many legal concepts and

principles, I should like to suggest that the present difficulty can only be overcome, if the period of study of law is extended to four years. This is only possible if our representatives in the University consider this problem from a more practical point of view.

By proposing to extend the period of study of law to four years, I do not mean that the students should be required to waste two more years of life at the University for the purpose. My idea is that studies in law, for those who want to take to it, should commence two years earlier than at present. Students after passing their Intermediate Examination should decide and take up either Arts or Law as they like. This would serve twofold purpose, the first and foremost being to enable a student to acquire best possible knowledge of the subject to equip himself for his profession. Some portion of this period can with advantage be utilised to afford practical training to the student lawyers at the hands of those who have put in practice at the bar. This will, certainly, be of immense use to them—I mean the students in their profession, and they will be in a position to create confidence in their clients.

Turning to the details of the distribution of the course over four years as proposed, I should like to suggest as follows:—

There should be four examinations in Law:—called the 1st, the 2nd, the Pre-Final and Final; or the Preliminary, the Intermediate and the Pre-Final and the Final.

The courses should be distributed as follows:—

1st or Preliminary Examination in Law: One year.

(1) English—General and Special (Two papers).

(2) Law:—Jurisprudence, Roman Law, Law of Constitution and Equity (One paper each).

2nd or Intermediate Examination in Law: One year.

(1) Criminal law—Procedural and substantive, one paper.

(2) Law of evidence.

(3) Law of contract and specific relief, including Negotiable instruments, mercantile law, Indian Majority Act.

(4) Company Law.

3rd or Pre-Final Examination in Law. One year.

(i) Succession and Family rights of Hindus, Moham-medans and communities governed by the Indian Succession Act of 1925.

- (ii) Law of transfer, Registration and Trust and Tenures.
- (iii) Civil Procedure and Limitation.
- (iv) Law of Insolvency.
- (v) Court-fee and Stamp Acts.

4th or Final Examination in Law.

This will consist of practical knowledge of the court work both civil and criminal and application of the theoretical knowledge of Law.

This proposal of mine serves twofold purpose and rightly. The second purpose which it is intended to serve is to check the present indiscriminate rush, of many of the ill-fated young graduates, at the Law colleges which serve them more or less as resting places and ultimately force them to the legal profession—only to be disappointed.

I say all this, with due apologies to my lucky brother pleaders and selected few who are favoured with handsome employments Government or otherwise. The lot of an average graduate of today needs no graphic description. Such unlucky souls, instead of wasting four years of their life in groping in darkness, will be forced to take up to something else than the Law course which is not a profitable occupation for all the law graduates.

PLAN FOR THE EXAMINATION OF THE PERSONALITY OF THE SECONDARY TEACHER AND OF HIS RELATIONS WITH THE PUPIL

*(By the courtesy of the Educational Association of
Secondary Teachers).*

PROBLEM

The examination of the personality of the teacher is, both from the pedagogical and didactical aspects of secondary teaching, as indispensable as that of the pupil. The relations between teacher and pupil are worth studying under the following heads: (a) the biological relation; (b) the psychological relation; (c) the sociological relation; (d) the pedagogical relation; (e) the didactical relation; (f) the relation of explorer.

QUESTIONS

I.—Biological relation

1. Is it worth while to determine the relation between the race complexes of the teacher and the pupil?
2. Would it be better to determine the relation between the types of bodily constitution of the teacher and the pupil?
3. Is it important to determine the relation of the mental state and of the healthiness of the nervous system?
4. How may the scientific examination of these relations be assured: (a) by the school doctors; (b) by psychotechnical institutes; (c) by professional institutions established by the national associations of those engaged in official secondary education?

II.—Psychological relation

1. Is the introspection of the teacher sufficient to determine the relation of his mental states: (a) with regard to his pupils; (b) to his success or lack of success in school?
2. Or would it not be better to use more exact experimental methods?
3. How may one ensure the collective examination of the relations: (a) of character; (b) of intelligence; (c) of out-of-school interests and activities?

4. Who ought to undertake this examination: a school psychologist? an outside official institute? a professional institution established by the national associations of those engaged in official secondary education?

III.—Sociological relation

1. Is it worth while to examine: (a) the social relation between teachers and education; (b) the relation between the social satisfaction of the teacher and his success in school?

2. How may the examination of these relations be undertaken: (a) exclusively by the historical, genetic method; (b) or rather by the statical method, in relation to the present epoch?

3. Who ought to undertake this examination: an official institution or a professional institution established by those engaged in official secondary education?

IV.—Pedagogical relation

1. Is it within the function of the teacher to impart knowledge and in addition to educate the pupil?

2. What types of teacher are ideal for the pedagogical relation: (a) specialised type (scientific); (b) teleological (economic); (c) social (pedagogical tact); (d) what other types (authoritative, etc.).

3. What should determine the type adequate for the educational relation between master and pupil?

V.—Didactic relation

1. How should the relation between the character, temperament and type of teacher and his teaching methods be determined: (a) by introspection or by the experimental method; (b) by scientific, professional or other institutions?

2. How may the relation between the conditions of work of the teacher (material, social, moral, etc.) and his methods and success in teaching be determined?

3. How may the relation between the state of physical and mental health and the teaching methods and success of the teacher be determined?

VI.—Relation of the explorer

1. Is it worth while for the teacher to apply the results of psychological investigation to his pupils?

2. How may the scientific examination of his pupils be made possible for the teacher, taking into account his pedagogical and teaching obligations?

3. How may auto-observation and the observation of the relations between a candidate (for a post of secondary teacher) and his pupils be arranged for in the official time-table?

Remarks on the Plan

The object of this plan is to direct international interest towards the collective and scientific examination of the personality of the secondary teacher and of his relations with his pupils, taken both individually and collectively.

Up to the present, the official examination of the personality of the teacher has been carried out in a haphazard manner and subjectively. We are concerned with an objective knowledge of the individuality of the teacher. In the relations between the teacher and his pupils we distinguish six categories:

(a) *The biological relation*, in the strict sense of the term, that is to say, the influence of the physical factors of the individualities of the teachers and the pupils on their reciprocal relations in education and instruction and on their consequences.

(b) *The psychological relation*, that is to say, the influence of the psychological factors (character and temperament of master and pupils), on their reciprocal relations.

(c) *The sociological relation*, that is to say, the influence of the social position, social obligations and social *milieu* of the teachers and the pupils on their relations in the matter of work, instruction and education.

(d) *The pedagogical relation*, by which is understood above all the conscious and intentional efforts of the teacher towards the formation of the pupil's character.

(e) *The didactic relation*, by which is understood the making use of the methodical preparation of the teacher and of his natural capacity for teaching—the relation between the methods of instruction and the capacities or individualities of the pupils.

(f) *The relation of explorer*, by which is meant the relation of the master-psychologist, studying his pupils, the master-anthropologist, measuring his pupils, the master-ethnographer, studying the ethnic elements in his pupils, etc.

THE FILM IN NATIONAL LIFE: A POWERFUL INFLUENCE IN EDUCATION

BY

SHEIKH IFTEKHAR RASOOL.

There was a time when people used to debate whether or not the cinema was an art, and if it had the right to call itself such. Some people stated that the motion picture represented the *ne plus ultra* of artistic expression, while others condemned it root and branch. In the end, wiser views have prevailed.

That the cinema is art, interests only those who are convinced, by way of definition, that art is a form of reality created by the spirit of man. There is no art without an interior reality, just as there is no art without spiritual interpretation, without intimate recreation. Does the motion picture possess these two elements? To state the question in its logical philosophical form means showing at the same time how we may trace the true laws which govern cinematography.

Crisis of Reality.

The cinema appeared at the moment in which the human mind was undergoing what might be defined as a crisis of reality. The expressions which are derived from the word real, such as realist or realism, appear in the writing of our contemporaries. Their very frequency is an indication of the strange forced meanings in which these words have been used.

The film is an international force, but the 'films which have achieved international renown have been a consummate expression of national genius.'

Powerful Influence.

One cannot deny that the cinema exercises, in its proper use, a powerful and beneficial influence upon the community; its cultural and educational possibilities are unlimited, whilst as an instrument of propaganda its value is equal to Broadcasting and the Press.

It must not be forgotten that the taste of the next generation is largely formed at school. If they thought about them it was in the terms of disapproval and desire for censorship; their criticism was based on an instructive reaction against a force

which they assumed to be the offspring of alien powers of darkness. But now, admitting that no mechanical aid can be a substitute for personality, most teachers recognise the vital importance of the film. Every educational authority that has investigated the matter agrees that films ought to be used for this purpose.

Education of the Child.

Films stimulate thought; their beneficial effect upon those whose memory is of the visual type is very noticeable. Films are essential to education. It is with the aid of films that the modern student can explore the seas, skies and earth, penetrate ocean depths, or forests and jungles, visit far-off lands to become acquainted with other customs, scrutinise the animal and plant kingdom, the inner working of the human mechanism, or observe the world's social and economic progress.

With this instrument education becomes a vital pursuit, full of enriching experiences. The teacher becomes a guide to the student whose mind and spirit have been stimulated, and whose latent curiosity has been aroused.

For the Class-room.

In Science, it provides a demonstration which every student can see at the same time. For Law classes it can portray the court-room scenes and cases involving human relations. In Medicine, it can demonstrate the surgical methods of specialists from all parts of the globe. For Business courses it can show types of business practices.

In a country like India, where boys and girls are compelled by circumstances of language to study facts relating to the achievements of science by means of a foreign language, it is obvious that the educational film has a very useful part to play in the curricula of schools and colleges. Not only can the scientific education of Indian children be made more productive of assured benefits by means of the cinema, but they could be taught history by means of films in a more realistic manner.

National Centre Needed.

Only a few years ago the cinema was a mere peep-show, ridiculed by the rulers of commercial entertainment at that time. To-day this crazy idea has grown into a world's entertainment, international as no other form of entertainment has ever been. But it is a pity that due advantage has not been derived from its great sources. Almost in all parts of the world an immense

amount of harm is being done by the exhibition of films that are not only vulgar and ignoble, but definitely untrue to life.

In India where there is no national centre for developing the film, responsibility for this powerful force in contemporary life falls between a few producers on the one hand and a few exhibitors on the other. Whatever else is done, there can be no real and general improvement until some permanent centre is established which can turn a steady, creative influence on the Indian cinema.

By Legislation.

The Legislative Assembly or whatever the legislative organisation concerned with educational questions in India, may be called after the next instalment of reforms, could not further the cause of education better than by making compulsory in all schools and colleges throughout the country the employment of the cinema for educational purposes.

In biology, sociology, botany, history, physics, chemistry, geology, astronomy, architecture, painting and music, films prepared by experts in their subjects under efficient cinema directors, would hasten the pace of education in India for dispelling the darkness of ignorance even in most out-of-way villages than we considered practical or possible before.

Economically, the cinema is capable of producing revolutionary changes for the better, in agriculture in India by demonstrating to the ryot and landlord the advantages of scientific agriculture. To some extent, the Indian railways have employed films for propaganda purposes, and they have shown the way for the more extensive use of the cinema in other directions. One can hardly exaggerate the great strides which India would make, for instance, in sanitation and hygiene, if films dealing with sanitation and hygiene were, for example, broadcast by means of railway and motor lorries.

No matter in what direction it is intended to educate India, the cinema provides a potent instrument for disseminating accurate useful knowledge, and in no sphere of Indian life, so potent as in schools and colleges, for both children and adults.

THE FUTURE OF STATE EDUCATION

BY

MR. BERTRAND RUSSEL

(Extract from the Presidential Address to the Union of Educational Institutions).

The inadequacy of education as it is at present is a very grave matter. Before the days when schooling was made compulsory, most of those who could read and write were fairly widely educated; but now, though everybody has been taught to read, most people have been taught little else. The capacity for being misled by any emphatic assertion, however absurd, is one which present elementary education does not destroy, and which has become more harmful, not less, since everybody has been taught to read. Elementary schools, in the short time at their disposal, cannot give such scientific training or knowledge as would enable the pupils to reject obvious nonsense, and cannot effect anything in the way of protection against various kinds of quackery, in medicine, in journalism, or in politics.

* * * * *

There are, of course, reasons against prolonging compulsory education. The one which weighs most is expense. As to this, there are various things to be said. For every 100 young people of 16 years old in Great Britain in 1937, Sir Josiah Stamp estimates that there will be eighty-five in 1942, seventy-three in 1952, and sixty-two in 1962. Meanwhile, according to the same authority, the number of people from 65 to 74 years old will continue to increase. We can, therefore, very considerably increase the educational expenditure per child without increasing what each adult has to contribute. If we merely keep our total educational expenditure constant, we shall be able, in 1962, to spend nearly twice as much on each child as we do now. There are large deductions to be made from the gross cost of education before we arrive at the true net cost, and this is especially true of education in the later years. Unemployment, and therefore unemployment benefit, is diminished by keeping juvenile labour from competing with that of adults, by discouraging the blind

alley occupations into which young people are now tempted, and by the direct effect of the expenditure in providing work. For these reasons we could raise the school-leaving age gradually to, say, 18, without any net increase of public expenditure; indeed, within fifteen years we could do it without any gross increase.

* * * * *

There are very important reasons for not ending education at 14. This is just the age when the intelligence of boys increases most rapidly. Those of us who have had a prolonged education will, I think, agree that most of the knowledge we value was acquired after the age of 14. Elementary education, at present, has to be hurried and dogmatic and cut-and-dried; it has to teach certain subjects—notably arithmetic—before the pupil is intellectually ready for them; and it has to eschew some things of great impotence, because they cannot be learnt at so early an age. . . . Before leaving this subject I am tempted to enlarge a little as regards arithmetic, which plays, I am convinced, much too great a part in present-day elementary education. It has, of course, great merits from a schoolmaster's point of view; an answer is either right or wrong, there is a very definite skill to be acquired, and children can easily be graded as regards their proficiency. It has, moreover, great practical utility. Arithmetic has, however, exactly correlative drawbacks. In many of the important problems of practical life there is not one answer which is definitely and demonstrably 'right,' and the education required for dealing with such problems is an education in 'judgment' which may be defined as the art of reaching a sound conclusion on adequate data. Arithmetic does nothing to cultivate this faculty, and even makes its existence seem doubtful. Grading children by their proficiency in arithmetic is dangerous, because many people with great abilities of very desirable kinds are not good at sums, and it is a mistake to give them, in youth, an undeserved sense of inferiority. Moreover, skill in getting the right answer can be acquired without the slightest understanding of the reasons for the 'rule'; but in the absence of such understanding arithmetic has very little educational value. The conclusion to be drawn is that, if arithmetic is to form a really valuable part of education, it must be begun later than at present, taught much more slowly, and with much more care to avoid a merely mechanical and unintelligent correctness. I have dealt upon arithmetic because it illustrates the dangers of attempting to give an education which is to cease at 14.

Assuming that education is to continue up to the age of 18, the question arises as to the proportion that should be technical. I think that some attempt should be made to classify boys and girls according to their abilities. At present the learned professions are virtually closed except to those whose parents can afford to keep them while they have an expensive training. This involves a loss of valuable skill. The level of proficiency in a profession would obviously be higher if all who showed sufficient aptitude were trained at the public expense. It would be a benefit both to the individual and to the community if every boy and girl possessed of exceptional abilities were trained in the full use of them. In theory this is recognised by the scholarship system, but in practice the recognition is very partial.

* * * *

But if it comes to suggesting that schools should generate a standard of values, we are on very dangerous ground. The State is only too ready to agree, but its standard of values may turn out to be very different from what reformers had hoped. We are faced, especially in totalitarian States—Germany, Italy, and Russia—with a new narrow orthodoxy fanatically instilled into the minds of the young, in the confident hope that they will ever after be incapable of independent thought or feeling. The power for evil of the new national fanaticisms is immeasurable; and of this power State education is a very important part . . . So far from ‘annihilating the freedom of the will,’ the liberal educator will aim at strengthening individual judgment; he will instil what he can of the scientific attitude towards the pursuit of knowledge; he will try to make beliefs tentative and responsive to evidence; he will not pose before his pupil as omniscient, nor will he yield to his love of power on the pretence that he is pursuing absolute good. Fichte and the powerful men who have inherited his ideals, when they see children, think: ‘Here is material that I can manipulate, that I can teach to behave like a machine in furtherance of my purposes; for the moment I may be impeded by joy of life, spontaneity, the impulse to play, the desire to live for purposes springing from within, not imposed from without; but all this, after the years of schooling that I shall impose, will be dead; fancy, imagination, art, and the power of thought shall have been destroyed by obedience; the death of joy will have bred receptiveness to fanaticism; and in the end I shall find my human material as passive as stone from a quarry or coal from a mine. In the battles to which I shall lead them, some will die, some will live; those who die will die exultantly, as heroes, those who

live will live on as my slaves, with that deep mental slavery to which my schools will have accustomed them.' All this, to any person with natural affection for the young, is horrible; just as we teach children to avoid being destroyed by motor cars if they can, so we should teach them to avoid being destroyed by cruel fanatics, and to this end we should seek to produce independence of mind, somewhat sceptical and wholly scientific, and to preserve, as far as possible, the instinctive joy of life that is natural to healthy children.

FIFTH INTERNATIONAL CONFERENCE ON PUBLIC EDUCATION.

(By the Courtesy of the Schoolmaster and the Woman Teachers' Chronicle.)

The Fifth International Conference on Public Education, organised by the International Bureau of Education, was held at Geneva. The following Governments accepted the invitation transmitted by the Swiss Federal Council:—

Afghanistan, Albania, Argentine, Belgium, Bulgaria, Chile, Colombia, Czechoslovakia, Denmark, Dominican Republic, Ecuador, Egypt, Estonia, France, Germany, Greece, Guatemala, Holland, Hungary, India, Iran, Irish Free State, Italy, Japan, Latvia, Lithuania, Nicaragua, Norway, Poland, Portugal, Spain, Sweden, Switzerland, Union of South Africa, United States of America, Uruguay, Yugoslavia. (The Government of Finland was represented by an observer, as well as the Secretariat of the League of Nations, the International Labour Office and the International Institute of Intellectual Co-operation. The Board of Education of England and Wales sent its report on the educational movement in 1935-36.)

The agenda of the Conference comprised the four following items: Reports of the Ministries of Public Instruction on educational movement in 1935-36; the Organisation of Special Schools; the Organisation of Rural Education; the Legislation Regulating School Buildings.

Professor Jean Piaget, the Director of the International Bureau of Education, stated that the Conference did not aim at establishing the conventions between the governments which were represented at the meeting, but the Conference unanimously approved recommendations to the Ministries of Education on the legislation on rural education and other educational matters. Appended is a summary of the resolution on Rural Education:

“Considering that in various countries the peasant class constitutes a reservoir of physical health and an element of moral force which it is necessary to safeguard in integrity by fighting against the drift to the towns and the depopulation of the country:

That the condition of modern civilisation and the progress of agricultural technique make it possible to organise an easier and a more comfortable life in the country.

That, even if the expansion of education has not had the serious effect which some would lead us to believe in drawing young people away from the country, the schools have at any rate in this respect not always been free from blame.

That on the contrary, the rural school, without aiming at giving a purely agricultural teaching, could and should enable country children to understand the importance and the social and intellectual dignity of peasant life, and should give them the fundamental scientific knowledge which is nowadays necessary for the intelligent practice of rural avocations.”

“Considering that, generally speaking, the problem of the rural school is to be found to-day in almost all countries though in varying aspects;

the Conference recommends to the Ministries of Public Instruction in the various countries:

(1) That it should be an accepted principle that the education given to the children in rural schools should not be in any way inferior to that given to the children in urban schools, and that it should permit them to pass into secondary schools.

(2) That, to this end, and to assure greater justice in the field of education, an effort should be made to remedy as far as possible any unfavourable conditions which may exist in rural schools.

(3) That the same standard of instruction should be ensured in all schools whether in town or country, it being naturally incumbent on the teachers to adapt their curricula or local conditions and, in particular, to draw their 'centres of interest' from the environment in which their pupils live.

(4) That an effort should be made also to adapt the organisation of rural schools (holidays, vacations, time-tables, as well as curricula) to the conditions of local or regional life.

(5) That, in order to assure a more complete community of spirit between urban and rural schools, both should be under the same Ministry.

(6) That the general curricula of elementary schools should have a definite bearing on the conditions of life in the country.

(7) That rural teachers should utilise the peculiar facilities for teaching offered by their environment so as to give a concrete and living character to their lessons, and thus to develop in their pupils a taste for rural life.

(8) That for the older children in the rural schools, the scientific instruction, without being purely agricultural, should have a particular bearing upon the ideas needed nowadays by agriculturists for an intelligent and profitable practice of their avocation.

(9) That, in order to enable rural schools to give the children the complete education to which they are entitled, the maximum number of pupils to be admitted to any single-teacher school should be strictly limited.

(10) That an endeavour should be made to reduce the number of single-teacher schools, as far as possible, by the provision of central or consolidated schools; but, even if such schools are retained for the sake of the younger pupils, central classes should, at any rate, be established for the older boys and girls; and to this end, necessary arrangements should be made for transport and meals.

(11) That for young people or rural families, who are able to continue their studies but do not desire a purely agricultural training, sections with a definitely rural bias should be established in the senior or higher elementary schools or corresponding institutions, in addition to the general sections preparing for the higher elementary school certificates.

(12) That teachers of rural schools should not have a status inferior to that of teachers in town schools; that, with this end in view, a general and professional training of the same standard should be given to both

urban and rural teachers whether in common or in separate institutions—adequate attention being paid in all cases to rural subjects, and also in the case of woman teachers to domestic subjects.

(13) That short courses in agricultural or domestic instruction should be organised for man and woman teachers who wish to specialise in post-school or continuation work in rural areas.

(14) That special benefits should be given to teachers in rural schools to compensate them for the inconveniences and disadvantages of living away from towns, thereby encouraging them in some measure to remain in the rural areas.

(15) That the work of the rural school should be supplemented or facilitated by extra-curricular or post-school activities such as young farmers' clubs, women's rural institutes, itinerant libraries, rural broadcasts, educational films, educational and cultural missions, correspondence courses, etc."

THE NINTH ANNUAL CONFERENCE OF THE INTERNATIONAL FEDERATION OF TEACHERS' ASSOCIATIONS: THE TEXT OF RESOLUTIONS

The State and the Schools.

1. The creation and maintenance of conditions favourable to the promotion of culture are foremost amongst the functions of the State. These functions cannot be fulfilled without the free and spontaneous co-operation of creative minds, nor without the confident and loyal collaboration of educationists. But this co-operation cannot be given unless it is based on freedom of thought and speech and respect for the human conscience.

2. In the general and professional training of teachers every possible provision should be made. After ascertaining that educationists exercise their profession with the necessary uprightness, courage and self-sacrifice, public authorities should place confidence in them and leave them to develop the child's sense of human dignity and social responsibility.

3. In teaching children to use their judgment, teachers prepare and ensure the evolution of public authority along the lines of humanity, reason and justice.

4. Teachers will present the nation as the collective achievement of past generations; an achievement indefinitely perfectible; they will emphasize the long chain of efforts, sacrifices and acts of devotion which the nation represents. They will emphasize its deeply human character and its loftiest ideals and will strive to create a national conscience which will not be inimical to the establishment of a comity of nations.

5. Teachers will demonstrate that nationalism and humanity far from being opposed to each other, are united and inseparable; that internationalism does not disavow nations but relies on them. Teachers will emphasize the interdependence of nations, the instability of purely national economy and the danger of antagonism between nations.

The State and the Teacher.

1. In order that the teacher may fully accomplish his educational task, it is important that he should be subjected only to the supervision of professionally qualified representatives of

educational authorities and be guaranteed against arbitrariness in appointment, promotion, security of tenure, superannuation and disciplinary procedure.

2. In order that the teacher may fully accomplish his educational task, it is important that he should be subjected only to the supervision of educational authorities and not of a power which would tend to turn him into a propagandist.

3. It is further necessary for good service that the probation time and the employment of auxiliary teachers, poorly paid and not qualified, should not degenerate simply into a means of savings by recruiting non-qualified staff inadequately payed and which can be dismissed at random.

4. In order to establish the guarantees necessary for the proper functioning of the educational system, it is desirable in all countries for teachers to be accorded a partnership in administration with the existing school authorities. This would ensure that teachers would have a voice in the determination of all matters concerning their own well-being, such as question of appointment, promotion, dismissal, remuneration and general conditions of service.

5. The I. F. T. A. declares complete liberty of association, nationally and internationally to be an inprescriptible right of teachers.

(Under the auspices of the All-India Federation of Educational Associations.)

TWELFTH ALL-INDIA EDUCATIONAL CONFERENCE, GWALIOR

December 26—31, 1936.

(Opening Session at Kampu Kothi Pandal and all other meetings at the Jinsi Building.)

OFFICERS OF THE CONFERENCE.

President of the Conference.—Pt. Iqbal Narain Gurtu, M.A., LL.B., Vice-Chancellor, Allahabad University.

President of the Federation.—P. Seshadri, M.A., Principal, Government College, Ajmer.

Chairman, Reception Committee.—Rao Bahadur L. B. Mulye, B.A., Member for Education and Municipalities, Gwalior.

Secretary of the Federation and the Conference.—D. P. Khattry, B.A., L.T., Headmaster, Pandit Prithi Nath High School, Cawnpore.

General Secretary of the Reception Committee and Joint Secretary of the Conference.—B. L. Vajpayee Bhimpure, M.A., LL.B., F.E.S., Vidya-bhooshan, Principal, Normal School, Lashkar, Gwalior.

THE PROGRAMME.

SATURDAY, THE 26TH DECEMBER, 1936.

- 11 A.M. *Opening of the All-Gwalior State Second Music Conference at Jinsi Building.* President:—Sardar C. S. Angre.
- 4 P.M. *Madhava Jayanti Prize Distribution and Opening of the All-Gwalior State Educational Exhibition by H. H. Maharaja Jivaji Rao Scindia at Jinsi Building.*
- 8 P.M. Music Conference and Entertainments. (Jinsi Hall.)

SUNDAY, THE 27TH DECEMBER, 1936.

- 9 A.M. *Annual Meeting of the Council of All-India Federation of Educational Associations for 1937.* (Open to the members of the Council only. The Council is also the Subjects Committee of the Conference.) Chairman: Principal P. Seshadri, M.A. (Jinsi Hall.)
- 4 P.M. *Opening Session of the Conference.*—Opening of the Conference by His Highness the Maharaja of Gwalior; Election of the President; Welcome and Presidential Addresses; Messages and Announcements, (at Kampu Kothi Pandal).
- 8-30 P.M. Music Conference and Entertainments, (Jinsi Hall).

MONDAY, THE 28TH DECEMBER, 1936.

(1) *University Education Section.*

- 8-30 A.M. *Chairman.*—Mr. P. Seshadri, M.A., Principal, Government to College, Ajmer.
- 10-30 A.M. (*Secretary.*—Prof. S. K. Yegnanarayana Aiyar, M.A., Pachaiyappa's College, Madras.)
- Secretary in Charge.*—Mr. V. G. Dani, M.A., Bart-at-Law, F.C.S., Deputy Inspector-General of Education, Gwalior.
- Joint Local Secretary.*—Mr. H. M. Bull, M.A. (Cantab.), Principal, Victoria College, Gwalior.

(2) *Moral and Religious Education Section.*

- Chairman.*—Pandit Ram Narayan Misra, Headmaster, Central Hindu High School, Benares.
- (*Secretary.*—Khawaja Sarwar Hassan, M.A., Bar-at-Law, University of Delhi.)
- Secretary in Charge.*—Prof. B. R. Bokil, M.A., Victoria College, Lashkar, Gwalior.
- Joint Local Secretary.*—Prof. R. K. Kulkarni, M.A., LL.B., Victoria College, Lashkar.

(3) *Adult Education Section.*

- Secretary.*—Mr. K. S. Vakil, M.Ed., I.E.S. (Retd.), Principal, S.M.T. Teachers' College, Kolhapur.
- Local Secretary.*—Dr. Prakash Chandra, M.A., Ph.D., Victoria College, Lashkar, Gwalior.
- Joint Secretary.*—Thakur Dasrath Singh, B.A., Scindia School, Fort, Gwalior.

(1) *Secondary Education Section.*

- 10-30 A.M. *Secretary.*—Prof. A. V. Mathew, B.A., B.T., S. M. T. Teachers' to College, Kolhapur.
- 12-30 P.M.
- Local Secretary.*—Dr. H. R. Divekar, M.A., D.Litt., Sahityacharya, Headmaster, V. C. High School, Lashkar.
- Joint Secretary.*—Mrs. M. Shekdar, M.A., Headmistress, Kamla Raja High School, Gwalior.

(2) *Health and Physical Education Section.*

- Chairman.*—Dr. P. V. Gharapura, M.D., Grant Medical College, Bombay.
- Secretary.*—Prof. Mannoo Lal Misra, M.A., Agra College, Agra.
- Local Secretary.*—Dr. Y. G. Apte, B.A., L.M.S. (Retd.), Gwalior.

Joint Secretary.—Dr. M. D. Pustake, Inspector of Schools, Gwalior.

(3) *Vocational Education Section.*

Chairman.—Justice G. K. Shinde, B.A., Bar-at-Law, High Court, Gwalior.

(*Secretary.*—Mr. H. S. Dixit, A. M. Tech. I., Superintendent, Handicraft School, Nagpur.)

Secretary in charge.—Mr. V. L. Mane, L.M.T., M.E.B., N.E.S., Principal, C. T. Institute, Gwalior.

Joint Local Secretary.—Mr. Bhide, B.Sc., C. T. Institute, Gwalior.

2 P.M. *General Session of the Conference.*—President of the Conference in the chair. Reports of Sections. Symposium on
to
4 P.M. Educational Reorganisation. Resolutions. Secretary, Mr. D. P. Khattry, Joint Secretary, Mr. B. L. Vajpayee Bhimpure.

4-30 P.M. Evening Party. (Archæological Museum, Fort.)

8-30 P.M. Music Conference and Entertainments.

TUESDAY, THE 29TH DECEMBER, 1936.

(1) *Training of Teachers, Educational Research and Experiment Section.*

8-30 A.M. *Secretary.*—Dr. G. S. Krishnaiya, M.A., Ph.D., S. M. T. Teachers' College, Kolhapur.
to
10-30 A.M.

Local Secretary.—Mr. B. L. Vajpayee Bhimpure, M.A., LL.B., F.E.S., Principal, Normal School, Gwalior.

Joint Secretary.—Mr. Shiva Nath Singh, M.A., T.D., Normal School, Gwalior.

(2) *Childhood and Home Education Section.*

Secretary.—Mr. Gijubhai Badheka, Principal, Daxinamurty Balmandir, Bhavnagar.

Local Secretary.—Mrs. F. G. Pearce, C/o. Mr. F. G. Pearce, Principal, Scindia School, Fort, Gwalior.

Joint Secretary.—Mr. V. L. Phatak, B.A., B.T., Scindia School, Fort, Gwalior.

(3) *Examination Section.*

Chairman.—Dr. Ziauddin Ahmad, M.A., Ph.D., C.I.E., Vice-Chancellor, Muslim University, Aligarh.

Secretary.—Mr. A. S. Sinha, M.A., D. A. V. College, Dehra Dun.

Local Secretary.—Prof. T. P. Bajpai, M.A., L.T., Victoria College, Gwalior.

Joint Secretary.—Prof. P. W. Bapat, M.A., L.T., Victoria College, Gwalior.

(1) *Primary and Rural Education Section.*

10-30 A.M. *Chairman.*—H. N. Wanchu, M.A., B.Ed., Asst. Director of
to Public Instruction, Allahabad.

12-30 P.M. *Secretary.*—Sardar A. T. Mukerjee, M.Sc., M.R.A.S., Head-
master, Hindu High School, Nabadwip (Bengal).

Local Secretary.—Mr. K. L. Razdan, M.A., Deputy Inspector-
General of Education, Gwalior.

Joint Secretary.—Mr. M. N. Kaul, M.A., Victoria College,
Gwalior.

(2) *Internationalism and Peace Section.*

Chairman.—Sir K. N. Haksar, Kt., Gwalior.

Secretary.—Mr. M. E. Venkateshwaran, Officer-in-Charge,
League of Nations, Bombay.

Local Secretary.—Mr. F. G. Pearce, B.A. (Cantab.), Principal,
Scindia School, Fort, Gwalior.

Joint Secretary.—Mr. N. G. Thakar, M.A., Scindia School,
Fort, Gwalior.

2 P.M. *General Session combined with a Special Session on Women's*
to *Education.*—Reports of Sections. Symposium or Reorganis-

4 P.M. *ation of Women's Education. Resolutions. Local Secretary,*
Mrs. Shinde.

4-30 P.M. Gwalior State Military Display at the Race Course Grounds.

6 P.M. Visit to the Gwalior Fair.

9 P.M. Music and Entertainments. Musical Concert.

WEDNESDAY, THE 30TH DECEMBER, 1936.

9 to 11 A.M. All-Gwalior Music Conference.

8-30 A.M. (1) *Sections whose Proceedings could not be finished.*

to (2) *New Education Fellowship Meeting.*

10-30 A.M.

Secretary.—Mr. F. G. Pearce, B.A., Principal, Scindia School,
Gwalior.

12-30 P.M. *Closing Session of the Conference.*—(President of the Con-
to ference in the chair.) Reports of Sections. Papers and

3-30 P.M. Discussions. Prize-giving of the Tennis Tournament, the
Exhibition and the Music Conference. Resolutions of
Courtesy.

4 P.M. Visit to the Palace and At Home at the Fair.

8-30 P.M. Music Conference and Entertainments.

THURSDAY, THE 31ST DECEMBER, 1936.

Excursions to places of general interest.

REVIEWS

The Teachers' Mental Equipment, by R. R. Kumria, M.A.
(Rupee one, Rai Sahib M. Gulab Singh & Sons, Lahore.)

Mr. Kumria's object is to show that "every teacher can reform himself with a little effort." The teachers "must be reborn before they take up the responsibilities of their job." He has discussed his theme in eleven chapters and has come to the conclusion that "the inner transformation can be achieved only by struggle and sacrifice." The majority of good teachers are well aware that teaching practice is painfully inadequate to educational ideals. But best things in the practice of good teachers are considered to be undefinable and incommunicable and any advice to analyse these would be a counsel of despair. Mr. Kumria assures us that there is hope for every teacher through self-knowledge and self-mastery and that his theorising is not futile. Mr. Kumria is a teacher in Psychology and is "well-fitted in scholarly attainment and by experience" to treat his subject with balance and poise. Not the least interesting question in the book is that of the teachers' attitude towards "Sex". All of us, as teachers, are aware of the gravity of the problem but only a few have the courage and conviction like the author to give a complete account of the factors involved. The volume is naturally suggestive rather than final. Nevertheless, it will illuminate afresh for many teachers their daily experience and will enable them to work intelligently in fields in which perhaps they have had to work blindly. It completely fulfils the author's object—to show the bearing of modern psychology on the teachers' mental equipment; and to demonstrate that practical guidance is possible in several phases of character development. No better first steps towards preparation for a teacher's career could be made than for all aspirants to read Mr. Kumria's book.

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Published by Mr. F. G. Pearce, Principal, the Scindia School,
Gwalior.

The current number of the Scindia School Magazine draws its inspiration from the recent rejoicings at the Investiture of His Highness George Jivajee Rao Maharaja of Gwalior. It breathes

throughout that sense of delight and strength which is often felt with the advent of a new ruler. The young Maharaja has a personality in which greatness and goodness have found lavish proportions and the magazine has rightly directed its flash-lights on his training and his side activities as a prince. Mr. Pearce, the Principal, has contributed an exceedingly interesting article on the Training-Ground for State citizenship and other contributors and artists are at their best. The rich variety of tasteful tri-coloured art productions are irresistibly arresting. The need of a Monthly Journal for a public school is academically essential; for it is the voice of the school wherein the teacher and the taught join in a chorus for literary improvement and mutual exchange of ideas. The present number is the outcome of the efforts of the present boys and the old boys, and the staff of this remarkable institution. It is worthy of the cause which it espouses and we are sure it is bound to flourish.

Brief Rules for Games in Schools—Compiled by W. M. Ryburn. (4 annas. Oxford University Press.)

Mr Ryburn has produced a short popular manual which serves a most valuable purpose. Most of the games whose rules are included are well-known and familiar. Hockey, Football (Association and Rugger), Cricket, Lawn Tennis, Volley Ball and Basket Ball have all elaborate sets of rules which have been compressed into 37 pages. In addition to these the compiler has also described a number of minor games, viz., Hand-ball, End Ball, Bucket Ball, Call Ball, Kabaddi, Collaring, Smuggling, The Siege, In the Pond, One Missing. It is a really useful booklet and should prove of value to young referees, Scout leaders and teachers.

(1) *Revelations of a Standardised Reading Test (in Hindi).*
(2) *Standardised Reading Tests in Hindi for Grades 1, 2 & 3 (Examiners' Manual in English and Hindi both) together with Forms A & B.* Compiled and published by Rev. E. W. Menzel, Bistrampur.

Measurement by means of standardised tests has advanced so rapidly in America that it is difficult for us to keep ourselves up-to-date in India where its progress is proverbially slow. Rev. Menzel's efforts in this direction are commendable and will prove of immense value to primary school teachers, examiners

and inspectors. "This test composed for the testing of reading ability has four parts." The first part deals with the recognition of words while part the second is a speed test. The third part consists of printed directions with pictures, e.g., Draw a tail on the dog. (The picture of a tailless dog is given); and the fourth part tests the ability to get the meaning of a paragraph as a whole. The test was given in some twenty schools and the results are tabulated and given in the first brochure. Wide differences were noticed in the achievement of teachers and it was found that the reliability of the reading test is .73. Rev. Menzel thinks that as "America is rather test-wise and India test-shy," this reliability is fairly satisfactory for India. The Examiner's Manual is simple, clear and full. How we wish that educationists in other provinces also experimented in this direction!

The Modern Librarian, Vol. VII, No. 1. Edited by R. R. Kumria, M.A. (Rs. 5 a year. Forman Christian College Library, Lahore.)

This is a quarterly Journal of Library Science issued from the Forman Christian College, Lahore. The number under review is an excellent production containing readable articles and useful notes and information. It provides abundant and varied materials for librarians and readers both. The Imperial Library of Calcutta and of Madras University, Benares Hindu University, Dacca University and Delhi University have been described in detail and their essential features are well with study. Mr. M. N. Amin has given a graphic description of the Library Movement in Charotar while Pandit Damodar Misra has provided an interesting history of the libraries in the province of Orissa. It is attractive in form, remarkably well-printed, and not too bulky. It should prove of great service to students, scholars and librarians.

EDITORIAL NOTES

His Highness the Maharaja of Gwalior.

We publish elsewhere a portrait of His Highness the Maharaja George Jivajeerao Scindia who will inaugurate The 12th All-India Educational Conference on the 27th December, 1936 at Gwalior. In this portrait the Maharaja appears as a human personality in a contemplative mood. The Maharaja assumed powers as the Ruler of his state only recently and his first All-India act will be the opening of a Conference of earnest educational workers who toil year in and year out for the amelioration of the educational conditions of the country. By associating himself with the Conference His Highness will add to the dignity of the gathering and will demonstrate to the world that the princes and the people of India are equally solicitous of the educational welfare of the land they live in; while he in return will carry the best wishes and affectionate regards of the votaries of knowledge at the commencement of his career as one of the most enlightened princes of one of the most magnificent of Indian states.

The Twelfth All-India Educational Conference.

We hereby invite all our readers to attend the 12th All-India Educational Conference to be held at Gwalior on December 27—30. The Conference is the embodiment of the educational endeavour of the whole of India and is supported by all types and reactions of educational workers. It does not evade the duty of thinking out what exactly we mean our education to do for India, neither does it lull itself with the belief that the *status quo* is the best and should not be disturbed. Nowhere the divine discontent is more visible than at the Conference, and the delegates never hesitate to come to grips with realities. The prospects of education all over the country are decidedly uncertain but there is no timidity or vagueness about our demands for educational growth and development. We are going to plan our definite ends and shall have no stone unturned in achieving our object.

The Reception Committee.

The Reception Committee is a body of earnest workers led by Rao Bahadur L. B. Mulye, the Member for Education of the Cabinet of Gwalior State. He is ably supported by his two Deputy Inspector-Generals, Mr. Dani and Mr. Razdan, both of whom are old members of our Federation Council. The General Secretary Mr. B. L. Vajpayee Bhimpure is an earnest, sincere and unostentatious worker who has had considerable experience of the various conferences held by the Federation. He is assisted by a large number of educationists of the Gwalior State who have thrown themselves heart and soul into the work and are planning efficiently to make the Conference an unprecedented success. We cannot forget, in this connection, to mention Principal F. G. Pearce, who in addition to his own duties of running a very successful public school, has never spared himself in the service of the Federation. His association with the Reception Committee is one of the happiest features of our Conference week.

The Council Meeting.

The Council of the All-India Federation of Educational Associations for 1937, which is also the Subjects Committee for 1936 Conference, will meet at Gwalior on the 27th December, with Principal P. Seshadri as the Chairman. Mr. Seshadri is the founder of the Federation and the qualities of organisation and administration displayed by him are the envy of many. The masterly way in which he has been guiding the deliberations of the Council Meetings has extorted admiration from all, and the patience and expedition displayed by him have singled him out as indispensable. The Federation is now 12 years old and there are definite proposals for giving a new orientation to its policy and procedure which would be discussed at the Council Meeting with zeal and vigour.

The Sectional Conferences.

We hasten to correct a slight inaccuracy that crept in our notes of the last month. The University Section will not be presided over by the President elect of the Conference but by Principal P. Seshadri, the President elect of the section. The Health and Physical Education Section will have for its Chairman Dr. P. V. Sherpure of the Grant Medical College, Bombay, who devotes a considerable portion of his time to the propagation of the Safety First Movement in India. We are fortunate in securing the services of Pt. Ram Narayan Misra,

the talented Headmaster of the Central Hindu High School, Benares, as the President of the Moral and Religious Education Section. It will be remembered that Pt. Ram Narain Misra was chiefly responsible for the organisation of the All-Asia Educational Conference at Benares in 1930. The qualities of educational planning and leadership displayed by him there were highly admired. Justice Schinde of Gwalior has kindly consented to be at the helm of Vocational Education Section while Principal A. C. C. Hervey of Ludhiana will be in charge of the New Education Fellowship.

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**All-India Federation of Educational Associations
Post-Box 52, CAWNPORE**

The Indian Journal of Education

(Edited and Published by the All-India Federation of Educational Associations, Post-Box 52, Cawnpore)

OBJECTS

- (1) To act as an information Centre for all matters relating to Indian Education.
- (2) To encourage scientific investigation in educational sphere and to stimulate statistical enquiries or those relating to experimental projects.
- (3) To consolidate a public of those who, finding it impossible to be indifferent about the educational drift of India, believe that a concern for the health of educational criticism is immediately relevant to the political and economic urgencies of the time.
- (4) To provide a mouthpiece for Indian educational thinkers and researchers.
- (5) To strive for World Peace through Education.

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The Managing Editor of the Journal is assisted by an Editorial Board appointed by the Council of the All-India Federation of Educational Associations which consists of the most noteworthy figures on its platform. Its contributors include among others the pick of Indian scholars and savants who can write authoritatively on their subjects.

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No. 10

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MANAGING EDITOR:
D. P. KHATTRY



OCTOBER, 1936

ALL-INDIA FEDERATION OF
EDUCATIONAL ASSOCIATIONS

POST-BOX 52, CAWNPORE

PRICE ANNAS EIGHT

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Editors' Note

The Editors will be glad to receive contributions on all matters educational and particularly invite for publication (a) authoritative articles on educational topics ; (b) short articles dealing with educational research ; (c) accounts of educational experiments ; (d) articles containing statistics and their application to the solution of educational problems ; (e) short notices of original works ; (f) news of interest to educational workers.

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DR. HENRY LESTER SMITH

Indian Journal of Education

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PEACE

BY

DR. HENRY LESTER SMITH

Bases of Peace.

Confidence between man and man is one of the greatest of social values. Trustworthiness is absolutely necessary in a world where everyone depends upon everyone else. Absence of truth means anarchy. Untrustworthiness constantly creates suspicion and divides man from man. Children must be taught the friendly attitude instead of distrust; but first they themselves must be worthy of trust. Confidence begets confidence and becomes a basis for cooperation. Faith in humanity is a requisite for lasting peace.

Religion.

Peace must be based upon religion. A vitalizing, unifying power is found in religion which can be obtained nowhere else. Christianity illustrates this unifying power, being based on the fatherhood of God and the brotherhood of man.

It furnishes principles and ideals. It provides a loyalty which holds men together and teaches an attitude of goodwill, which, if made universal, would preclude all war. Religion, which is a Divine-human relationship, can be a stronger sanction for peace than any that is merely physical or economic. Exactly the same may be said of other outstanding religions. This places a heavy responsibility on those who hold places of leadership in the churches and religions.

Common Responsibility.

Peace rests on the recognition of the fact that all nations are fundamentally interrelated. There is a common responsibility. Sovereignty, repellant individualism, total neutrality must be given up, for all nations are economically interdependent. Each state must give consideration to the will of a collective humanity.

Cooperation.

Peace must be built upon intelligent methods of cooperation. There can be no exemption from mutual moral responsibility. In a system of education which seeks to rid the world of war, force must give way to cooperation. Many social and economic problems transcend national boundaries and can be effectively handled only by international cooperation. A single government cannot make peace by itself.

Reason.

Peace must be based on a rationalism which is not swayed by emotionalism or tradition. Sentiment alone is not enough to end war. Civilized man has just as much aggressiveness as the barbarian. He has, perhaps, no more natural altruism than the barbarian. There is plenty of emotion to make man good, but also plenty to make man bad. Sentiment must be ruled by reason. When philosophers rule and logic prevails, and laws are based on principles of reason; when the masses of men think clearly—then peace will come.

Philosophy.

Peace must be based upon a sound philosophy. Philosophy takes the long-range view of world affairs and seeks to understand cause and effect. It separates the essential from the non-essential. Peace will come when men know truth from error and seek the ideal rather than the baser things of life. Philosophy systematizes and brings our aims and principles into clear consciousness.

Individual Goodwill.

All harmony and peace is based on individual goodwill. We cannot gain goodwill *en masse*. Appreciation of all values is ultimately an individual affair—based on individual consciousness. Apart from individuals there is no morality and no consciousness in which it could develop. We must, for peace, have the highest kind of self-consciousness. The work for international peace must begin in the soul of man.

Democracy.

Peace must have as a basis the equality of men. So long as one race or nation suppresses or subdues another there can be no peace. A democratic world federation offering liberty to all would pave the way for peace.

Justice.

Lasting peace must be built upon international justice. Righteousness does not change with the shifting power of nations. Without justice a treaty which closes one war merely creates the friction which causes another. First righteousness, then peace. With justice assured, peace work is made easy. Nations have the same sense of what is just toward themselves as individuals have. No nation believes it right or just for another to make war upon it, to block its ports, to invade its territory, to take away its independence. The Golden Rule is based on justice and goodwill.

Willingness to Sacrifice.

Peace must be based on the willingness to sacrifice individual or national desires or goods to international. There must be the willingness to pay the price of peace. Men's minds must be turned to accept values which will cause no deep-seated antagonisms. Each nation must be willing to bring its powers and gifts freely to the spiritual intercourse of a harmonious world. If we were as willing to sacrifice for peace as we have been to sacrifice for war, peace would soon come.

Foresight.

Peace must be built on foresight. It must be intentional and deliberately constructive. Peace is not automatic; it depends upon human interest and aim. We must foresee, plan, and construct in advance. We cannot rely upon the efficacy of impulse, sentiment, and emotion; nor upon a laissez faire doctrine. We must construct the social machinery necessary to bring about peace. We must have vision, plans, organizations, and education to reap a harvest of peace. A peace built on short-sighted plans or plans that contain the germ of future conflict cannot be permanent.

Love.

Charity, or Love, is the strongest bond of peace. Goodwill, friendliness, kindness, and the like are in reality only parts of love. Where love reigns, peace reigns. Love suffereth long and

is kind. It is love that binds one soul to another. Covetousness seeks to take all from another, but love gives all.

Peace must be built on the principle of love, for it is the principle of the perfect life. Love prompts reconciliation and the forgiving spirit. Love thinks no evil and is willing to suffer wrong. Love is universal and leaps over race and color and nationality. It is the universal spirit of peace.

Understanding or Education.

Harmony can come only through understanding. How can men love one another unless they understand one another? *Thinking* is the great need of today. When truth and facts are made highly clear and certain, the grounds of dispute are taken away. Civilization and peace progress through intellectual discourse of men of different nations. Education sets men free from superstition, fear, credulity, and bad habits of thinking. There must be judgment and wisdom. Internationalism requires enlightenment and the ability to take into account remote interests. Intelligent opinion must be diffused through the multitudes. Passions divide mankind, but intelligence manages and guides.

The Moral Law.

The moral law must be included in the bases for peace. Universal moral laws supply a basis for continual cooperation. States are united in peace not by self-interest but by moral ideas. States can grow in stability only as their citizens conform to common moral principles. Community moral laws must be substituted for individual force. There is not one moral law for men and another for nations. Whatever is crime for men is crime for a nation.

Loyalty.

Loyalty is a solid foundation for lasting peace. Loyalty is standing by the people and the principles in which we believe.

Loyalty to mankind consists in being loyal to the highest interests of humanity. It is a higher loyalty than loyalty to nation or community.

Loyalty to country consists in choosing the highest good of the country and working to obtain that good. Justice and benevolence are parts of loyalty and are, therefore, necessary to peace. Once truth is known and justice determined, then loyalty demands holding to the truth and carrying out justice.

Habits.

A good basis for peace is habit in the life of impressionable youth; repeated stimulus—habitual response. Unconscious ideals become the real forces that govern mankind. The unconscious part of our characters preserves our balance without our thinking of it. The momentum toward peace and the stability in keeping peace are supplied by the peace habits in thinking and conduct.

Race Unity.

Peace must be built on the knowledge that all men are of one blood. We cannot prove that race hatred is instinctive. Worst enemies are sometimes closely related. Simple peoples when not infected by outside ideas have no racial antipathies. There is no instinctive recognition of blood relationship. Race strangers have no instinctive abhorrence of each other. "Voice of Blood" theories must be disproven in order to have peace.

Individual Worth.

Peace must be based on the recognition of the worth of the individual personality. Distinction must be made between the value and the worth of men. Value is the property one has of satisfying the needs of another. Worth is the intrinsic preciousness which a human being possesses on his own account. Worth is to be ascribed to all men, irrespective of their value.

What rights can those men have who are looked upon as possessing only value? They can be used, abused, scoffed at, and thrown aside or even put to death.

Peace can come only as we see worth in all men. We must see the latent worth even in backward peoples and help bring out their undeveloped excellences.

Conciliation and Compromise.

Peace must be based on conciliation and compromise. Conciliation is akin to reconciliation. Differences are ironed out and enemies brought together. In many cases the opposing forces agree each to give up certain demands in order that peace might prevail. Arbitration is the deciding of disputes after a mediator has intervened and justice has been determined. The spirit of conciliation hastens and makes more permanent a peaceful settlement of difficulties.

Sound Economic Principles.

Peace must rest upon sound economic principles. The establishment of world-wide regulations to maintain fair and

equal conditions of economic competition is a necessity. International economic friction is often the cause of war. There must be monetary stability, financial security, and a just system of distribution of the necessities of life.

Tolerance.

As a basis for peace, tolerance is of first importance. Bigotry, self-conceit, dogmatism, have been perennial obstacles to international harmony. Toleration is of slow growth, but liberal thought gradually overcomes dogmatism. We must seek to understand one another rather than to refute one another. Respect for one another's beliefs and intentions leads to cooperation.

Sympathy.

Sympathy sees the good in all neighbors near and far, partakes of their joys and sorrows, and takes pleasure in their achievements and successes. Sympathy seeks to line up all mankind on the side of those who are wronged and against the tyrant and oppressor. It is this principle which raises man above the animals and becomes the foundation of all stable peace.

The Spirit of Brotherhood.

The spirit of brotherhood forms one of the best phases of lasting peace. This spirit, as the Quakers have taught us, comes to us as a result of the Inner Light. The Inner Light not only causes a high respect for self, but leads directly to a high respect for others. The individual must regard others with the same respect as he has for himself. The sense of kinship and human brotherhood is the basis upon which all peace must be built.

Character.

Peace must be based upon character. Character is what man is at heart: what he really is and not what he seems or pretends to be. Stability of character guarantees stability of purpose and of will. Treaties, promises, and agreements are worthless unless backed by good character. Peace depends upon permanency of attitude which in turn depends upon permanency of character traits.

PROBLEMS OF EDUCATIONAL RECONSTRUCTION

BY

DIWAN BAHADUR S. E. RUNGANADHAN, M.A.

(Extracts from the Presidential Address of the 27th Provincial Educational Conference of the Presidency of Madras).

The system of Education in India has been the subject of criticism for many years past. The Sadler Commission issued an elaborate report nearly twenty years ago after an exhaustive enquiry into the condition of the high schools and colleges in Bengal. The Hartog Committee appointed six years ago, made a valuable contribution towards the study of educational problems by their exposure of some of the weaknesses and defects of our system and their suggestion of suitable remedies. Since then the growing volume of unemployment among the educated classes has brought the question of educational reform to the forefront and the Central Government and some of the Provincial Governments have been devoting their attention to it. The Government of the United Provinces published nearly two years ago a resolution giving in some detail their proposals for reform "with a view to eliciting public opinion on them."

The Government of Bengal issued a similar resolution more recently giving in outline their scheme of school reconstruction, and calling upon educational experts and public bodies to express their views on the scheme. And still more recently the daily papers published the recommendations of the Committee appointed by the Government of Mysore to reorganise pre-university education in the State. I do not know what action the various Governments have taken or propose to take in the matter, but I would commend to our educational authorities the words of H. E. the Viceroy who said in his first speech at Delhi, "My anxiety is not to talk about agricultural improvement, but to bring it about." In view of the urgent need for the reform of our school system I would go farther and suggest to them "the words of Macbeth as a motto

"It were well

It were done quickly"

For the complexity and magnitude of the problems confronting us are such, that even if a beginning were made immediately it

would take several years for any comprehensive scheme of reconstruction to be carried through. There would, first of all, have to be a careful preliminary survey of all the schools in a Province with a view to their redistribution on some settled plan. Then, expert committees would have to be appointed to decide about the location of particular types of schools and to frame suitable syllabuses for these schools. As any large scheme of reorganisation would inevitably involve increased expenditure, it would take time to give effect to the scheme in suitable instalments. And above all, time would be required to educate public opinion in favour of the proposed changes and to secure general support for them. No educational reorganization can prove successful unless it has the strong support of the public. It is undeniable that there is still a considerable amount of prejudice among people against any type of education other than literary. It would be necessary to secure the co-operation of the great body of teachers in the country, of political leaders and of the public press in order to eradicate this prejudice.

The fundamental defect of our system of education has been summed up in two sentences by the Hartog Committee. Though often quoted they will bear repetition.

"All sections of the community have little, if any, choice of the type of school for their children. The present type of High and English Middle School has established itself so strongly that other forms of education are opposed and mistrusted, and there is a marked tendency to regard the passage from the lowest class of a primary school to the highest class of a high school as the normal procedure for every pupil." It is unnecessary for me, to dwell on the evils of this system—the waste of effort and money involved in it, the deleterious effects on the character of the boys and on school discipline and the enormous volume of unemployment to which it has led. I should like to refer, however, to some of the proposals which have been made to remedy these evils by the provision of varied forms of training to suit the different capacities and circumstances of children.

The reorganisation and expansion of primary education, which is of vital importance to the country, presents peculiar difficulties.

It is undoubtedly true that there is a great deal of wastage and stagnation in the lower standards of elementary schools and that a good proportion of even those who complete the course lapse into illiteracy. There is evidence to show also that even in rural areas there is a certain amount of overlapping between aided and local body schools, and that there are many schools which

are inefficient and ineffective. It is not clear, however, how far the policy of consolidation and concentration recently adopted by the Government has effected any real improvement of existing conditions. But even if it has been successful, it is obvious that an improvement in the quality of the existing schools is not enough. It is absolutely essential that Government should at the same time steadily pursue a definite and vigorous programme of expansion and compulsion.

There is fairly general agreement as to the lines of reform in regard to primary education. Educational opinion is inclined to the view that a school course extending over four years should be sufficient to secure permanent literacy. In the second place, the elementary schools situated in rural areas, should have a rural bias. One of the main defects of our present system of education is that it has no roots in the life of the people and is not relevant to their needs. While the instruction given in all elementary schools may be the same, the village school should relate that instruction to the conditions of rural life. The general subject of Rural Science, dealing with sanitation, health, village administration, agriculture, cottage industries, gardening, co-operation and so on, would provide a suitable correlating agency, and the aims and ideals of rural reconstruction should be made to permeate the whole curriculum. Nor should we leave the uneducated adult out of the village educational picture.

The primary school should be made the centre of village life, the inspiration for adult education and the chief motive power of rural progress. If that should be our aim, two things are essential. One is that the teachers in our elementary schools should be men who have come from rural areas with the interests of the village at heart, and who have received a suitable training. And secondly, there should be a proper coordination of the various departments of Government working in rural areas such as those of Agriculture, Public Health, Education and Forestry. I believe that this co-ordination has been established in the Punjab in the form of a Central Rural Community Board and of District Community Councils.

Similar co-ordination would be needed in all provinces, if the scope of the village school is to be enlarged so as to make it serve as a village welfare centre. In spite of financial stringency, Government should assist the development of primary and adult education to the fullest extent possible, and make adequate provision for the training of vernacular teachers. The success of this work will depend not only on the efforts of Government, but on the co-operation of local bodies and of all voluntary

organisations which are interested in the welfare of the villages. There can be no real progress in the country until new life is awakened in the villages. And new life will be awakened in them only when education in some form or other reaches the homes of the villages.

When these desirable changes are brought about, one may reasonably hope that a great deal of the wastage in Elementary Schools will disappear. Its complete elimination is not possible until there is an improvement in the economic condition of the masses. I would remind Elementary School teachers, however, that they could do much to reduce the evil even now. If they made their teaching intellectually stimulating and raised the efficiency of their schools, they would soon find that their pupils would be unwilling to leave them.

Above the primary stage, it has been suggested that secondary education should be divided into two well marked stages, middle and high. The former would extend over a period of three or four years and have an examination at the end of the course, and the latter would lead to the Secondary School Leaving Certificate Examination.

I am not aware of the reasons for the unpopularity of the old Middle Schools, but I consider that their revival and extension would be of distinct advantage to the country.

The Middle Schools would, as suggested by the Central Advisory Board, provide a course of general education, and prepare the student either for higher education or for specialised practical courses. The High Schools would carry on the general education of the student and prepare him either for admission to universities or for various forms of vocational training.

An integral part of the scheme of reorganisation proposed is that there should be a properly graduated series of technical, vocational and professional schools to work in cooperation with the general institutions.

It is rightly felt that manual training or handicraft should be made compulsory in the lower classes and optional in the higher classes of all general schools. The value of handwork as a part of mental discipline and as an instrument of education is so widely recognised that I am sure it will receive the importance it deserves. Such work would be prevocational and would provide a salutary corrective to the literary type of education in the ordinary schools.

As regards vocational training, it has been rightly held that it should be given in separate institutions rather than as an alternative to the general courses in the ordinary schools. If that

is to be so, then there is need for the provision of a large number of technical and crafts schools in India. It would be necessary, however, if technical unemployment is to be avoided, to make a careful survey of the economic needs of each province and to see that these schools are located at suitable centres. I would, in this connection, suggest that attempts should be made to revise and encourage such of the indigenous crafts as have fallen into decay.

The attempts which are being made by the French Government in their West African colonies to encourage native arts and crafts provide an impressive example of what a Government could do in this direction. After a preliminary investigation into the arts and crafts of the various districts, the Government authorities drew up plans for the starting of regional crafts schools at the headquarters of each of the seven colonies which constitute French West Africa. One such school has been organised in French Sudan and a second is being organised in French Guinea. Expert craftsmen are invited to work at these schools, which are under European directors. The craftsmen, in some cases, work along their own lines while in others, European technique was able to contribute to the improvement and development of the craft. These schools are thus becoming centres of inspiration for craftsmen throughout the country.

When these industrial and crafts schools are established, it is obvious that they should all be brought under some unified control. At present we find that the industrial schools are under the Department of Industries and have no connection with the educational department. Similarly the agricultural and commercial schools exist as independent institutions and have not been organised and fitted into the general scheme of education. It would be necessary to bring all the general and vocational schools under the control of a single Board or Department, if the reorganisation is to be a success. Then again, suitable arrangements would have to be made with the representatives of railway companies, commercial firms and industrial concerns to ensure that the pupils in the vocational schools go through an organised course of apprenticeship after their period of training.

As the provision of these technical schools would involve large expenditure, Government should be prepared to encourage private agencies to start and run such schools and give liberal grants towards their maintenance.

The success of the whole scheme would largely depend on the measure of support which it receives from the public. With a view to securing this support, teachers should establish and

maintain as close a relation with the parents of their pupils as possible. Parent-Teacher Associations should be formed, and regular meetings arranged. Such Associations would aid greatly in establishing co-operation between school and home. When a diversion of pupils to vocational courses is found desirable, the parents should be convinced that such courses were best adapted to their children's aptitudes and would prove most beneficial to them in the long run.

It is generally agreed that if education is to be really effective at the secondary stage, the teaching and examination in all non-language subjects, should be conducted in the vernacular, with English as a compulsory second language in the higher forms. Not only does a foreign medium impose an undue strain on the pupil, but it creates an air of unreality about everything which he learns. Because of this smoke screen of foreign words, he is unable to see things in clear outline and in proper perspective. He leaves school therefore with a mass of unassimilated knowledge, with nebulous ideas and an imperfectly mastered medium of expression.

The following sentences occur in the Government Educational Despatches of 1854:—"It is neither our aim nor desire to substitute the English language for the vernacular dialects of the country In any general system of education, the English language should be taught where there is a demand for it; but such instruction should always be combined with a careful attention to the vernacular language of the people."

I am afraid that it was our eagerness to secure the benefits of English education which led to the demand for the teaching of English even in the lowest classes and relegated the vernaculars to a very subordinate position in the school curriculum. However, we are all agreed now that the vernaculars are the proper media of instruction in our schools, and I hope, that even without compulsion on the part of Government, most, if not all our schools will soon adopt them for the purpose of teaching. The teachers could do a great deal to assist the movement for vernacularisation by the production of suitable text-books. One of the main arguments advanced against the adoption of the vernaculars as the media of instruction is the absence of text-books particularly on scientific subjects. The difficulty of coining suitable technical terms is undoubtedly great, but it is not insuperable. There are the purists on the one hand, who will not accept a word in its English dress but insist on its meaning being elaborately paraphrased in the vernacular. On the other hand, we have the pundits who hold that the new terms should be coined from

Sanskrit. Apart from these, there is the old method of simple transliteration.

While I am entirely in favour of preserving the purity of the vernaculars I yet think that they should freely borrow foreign terms for which there are no equivalents in our own languages. Every living language grows by the assimilation of such foreign elements. The Indian languages have absorbed a number of English words already, and their purity will not be impaired by the introduction of foreign words for which they have no equivalents.

The general middle and high school courses should be so devised as to provide the elements of a sound liberal education for all those who go through them. There seems to be an apprehension in the minds of some already that the proposed reorganisation of the school system would lead to the restriction of the benefits of education. So far as I am able to judge, it strikes me that the aim of the changes proposed is not to restrict the benefits of education but to adjust the educational facilities in the country to the different aptitudes and circumstances of pupils. Even under the reformed scheme, it should be possible for the poorest village boy who gives evidence of special intelligence and capacity to climb the educational ladder and go on to the university with the help of free places and scholarships. In my opinion, any programme of educational reform should include a large increase in the number of Government scholarships and in the value of these scholarships to enable poor and intelligent boys and girls to obtain the highest education they are fitted to receive. The Board of Education's report for 1934 (England) contains some facts and figures relating to the career from elementary school to university open to promising pupils, irrespective of family circumstances. Nearly 80 per cent of pupils admitted to secondary schools came direct from public elementary schools, and more than half of these pupils were admitted free. Of those admitted to private or aided secondary schools 65 per cent were given free places. This large percentage of free education is one of the factors, that account for the absence of wastage in secondary education in England.

The present high school course should be so revised as to avoid early specialisation and make provision for a knowledge of subjects which are necessary for general culture. The schools should be freed from the domination of the university and the bondage of a rigid external examination. The present high school examinations should be replaced by a simpler test which should not be competitive but relative to the school as well as to

the individual student. The school record of the student should be given due recognition, so that he might be encouraged to put forth his best efforts right through the course. It would also be necessary to so reconstitute the Boards of Education as make them representative of varied interests.

With the removal of the incubus of the public examination largely controlled by the universities, and the renewed recognition of the school record of students, it may be hoped that secondary education will become really effective. The present position is so bad that some critics have seriously questioned whether the schools give any education at all. The last Quinquennial Report states:—"Schools are too often merely coaching establishments and neither seek nor achieve any training of the mind in discipline, leadership and corporate action or any proper training of the body." The energies of the student are almost entirely absorbed in cramming for the public examination and in trying to get through it by the easiest and quickest methods available. The reported leakage of papers in connection with public Examinations at certain centres throws a lurid light on the unhealthy influence of the present system on the character and outlook of many of our students. The secondary stage is, in some respects, the most vital part of the educational system, as it is concerned with the training of the adolescent. It is at this stage that the student's habits are formed and his character shaped and it is here that education should above everything else be a discipline in the evaluation of right standards.

The reorganisation of secondary schools may necessitate the closure of a few inefficient and unnecessary ones and a redistribution of other schools. I hope, however, that Government will take the opportunity of encouraging by liberal grants the establishment of a large number of residential schools in the country. Educational experience points to the great value of a common life of residence issuing in various corporate activities which are both a discipline and a stimulus to the student. A residential school exercises a comprehensive and continuous daily influence on the student which mere attendance at classes and games cannot exert, promotes *esprit de corps*, and provides exceptional opportunities for inculcating ideals of conduct and for building up worthy traditions. If quality and efficiency are supremely desirable in education, then expenditure on these schools would be a wise investment.

Special attention would also have to be paid in any scheme of school reform to the provision for physical training. What has been done in this direction already does not fully meet the

needs of the situation. The schools should provide adequate playgrounds for their pupils and encourage all forms of extra-curricular activities. If the object of the school is not only to impart knowledge but to train and fit young men for leadership and service in the community then these extra-curricular activities should form a very necessary part of school education. The type and extent of such activities and the manner in which they are to be coordinated with intra-mural activities are problems which can be solved only after careful consideration and experiment. Such matters are, however, now receiving the attention they deserve. They are being investigated, for instance, by the Association for Education in Citizenship recently formed in England.

It is scarcely necessary for me to say that any scheme of reconstruction must make greatly enlarged provision for courses suitable for girls. Though there has been some progress in the education of girls, the disparity between the position of boys and girls is still so great that special efforts are necessary for the expansion of girls' education. It is fortunate that there is not much prejudice in the country in regard to co-education in the earlier stages. If the success of these co-educational schools depends, as has been suggested, on their being taught by women, then the need arises for the creation of a large body of trained women teachers. But in addition to these co-educational institutions there is an urgent need for the opening of a large number of separate schools for girls and for the enforcement of compulsion. The denial of educational opportunities for a large section of our girls and women would only perpetuate the weakness of the nation. As regards the curriculum of studies for girls at the secondary stage, it is generally agreed that while there should be provision for a course similar to that for boys for such of those girls as desire to go on to the university, there is need for an alternative course for the large majority of girls who are destined for married life. Such a course would lay special emphasis on subjects like domestic science, hygiene and welfare work. There has been a remarkable awakening of Indian women in recent years, and it is encouraging to find that an ever-increasing number of them are themselves beginning to tackle the many problems that confront them. Government may count on the enthusiastic support and co-operation of the educated womanhood of the country in the working-out of any suitable scheme for the reform and expansion of our schools for girls.

If the secondary school system were refashioned in the manner indicated, universities should be able to control their

standards of admission through their own examinations for Matriculation. The diversion of a large number of students at the earlier stages of education should enable the universities to admit only those who were fitted to pursue higher studies. It may be reasonably hoped then that the quality of academic work at our universities would improve and that they would be in a position to maintain the highest standards of learning and research and to give professional and specialised training. But in addition to all this, it is necessary that the universities should attempt to serve the community by training their students in practical citizenship also. The general assumption is that the disinterested pursuit of knowledge is in itself a training both for individual living and citizenship. Hence the lack of relation between many of our academic studies and the actual conditions of our environment. It is necessary that for practical citizenship emphasis should be placed on those aspects of knowledge which have special contemporary value. In order that the main problems of our time may receive adequate treatment, the social sciences should occupy a prominent place in the curriculum. Universities which have departments of history, politics and economics should, as part of their extension work, provide evening or summer courses in subjects connected with their departments, and, if necessary, award diplomas and certificates in them. Such diplomas and certificates may be granted in subjects like rural economics and co-operation, Municipal and Public Administration, and social science. I may point out that some of the provincial universities in England have instituted such courses and that there is a flourishing school of social science and administration at the University of Liverpool. It is increasingly recognised in all western countries that it is an important function of universities to give to the ordinary citizen, through its extension and adult education work, some general understanding of contemporary life and its problems.

The universities should also arrange for summer schools and refresher courses for the benefit of teachers. Little or no research work is done in this country in connection with teaching. In view of the many educational problems which confront us, there is need for an institute of Applied Psychology in India. It should be possible for the universities to start a central institute where educational experiments could be carried on and to which teachers could be sent to do research in applied psychology.

Whatever form educational reconstruction may take in this country, it has to be remembered that such reconstruction will inevitably involve a much larger expenditure of public funds than

in the past. If the Provincial Governments are unable to find the money, it is to be hoped that the Central Government will come to their aid. The Government of India, rightly realising that education is a matter of national importance have revived the Central Advisory Board, as a clearing house of ideas and a reservoir of information in all things connected with education. It would render a great service to the country by giving in addition, such financial assistance to the provinces as may be necessary for some years to come, for carrying out their programmes of educational reform.

It is impossible to disguise the fact that a large number of primary and secondary schools in the country are in a deplorably inefficient state owing to lack of adequate financial aid from the Government. Many of the aided secondary schools have no libraries worth the name and their equipment is meagre. The teachers in these aided and local body schools are miserably paid and their salaries are very often kept in arrears for months. On the plea of retrenchment school managements have imposed cuts ranging from 10 to 35 per cent on their already inadequate salaries. The tenure of teachers again is often very precarious owing to the absence of recognised rules for the appointment, promotion and removal of school teachers. The present conditions of service tend to smother all true vocational instinct in the teacher and to leave him with a chilling sense of being a mere hireling. Is it any wonder that he is often cold and lifeless with little or no enthusiasm for this work? It is well to remember that no educational reform can be really effective until the teacher is induced to take a living interest in his work. And this can only be done by paying him adequately and by improving his status. The scales of pay should be such as to attract to the profession of teaching and to retain in it the services of the best and the most gifted in the land.

Education is the most important of all the services to the community. Political and economic interests may be dominant, at the moment, but the time is not far off when education will come to be regarded as the supreme concern of every civilised community. We have seen how in certain countries in the west the resources of the whole nation have been pressed into the service of a wrong kind of education for purely political and economic ends. How much more necessary is it then to mobilise all our available resources to serve the cause of true education, which alone can liberate the human spirit from the bondage of ignorance and custom and prejudice and promote right relations among men?

THE SECONDARY SCHOOLS OF YUGOSLAVIA

BY

JOSEPH H. ROUCEK

After the World War, Yugoslavia faced the difficult task of unifying secondary schools from Slovenia, Croatia, Montenegro, Voivodina and Macedonia. In addition, Yugoslavia had to revise these schools in order to answer the new spiritual and practical needs.

The foundation, from which the reforms started, remained the secondary schools of Serbia, as put into practice in 1898. The Serbian secondary schools (*srednja skola*) had eight years, which were divided into the lower and upper divisions of four years each. The graduates from the fourth year of the elementary schools were accepted without any special examination.

The actual reorganisation and unification of all secondary schools was put into effect by the law of August 31, 1929. The three following types of secondary schools were established: the real gymnasium (*realna gimnazija*), as the normal type, in which French is taught in the first year, German in the third year, and the descriptive geometry in the fifth year; the classic gymnasium (*klasicka gimnazija*), with Latin and French taught since the first time and Greek from the third year; and the Real School (*Realka*), with French from the first, German from the third, and descriptive geometry from the fifth year.

In the Real Gymnasium, in addition to Latin, several hours are devoted to natural sciences and mathematics. The Classic Gymnasium pays special attention to the classic subjects (Latin and Greek). In the Real School the greater part of teaching is specialized in the natural sciences, mathematics, and technical knowledge. Religion, French, history, hygiene, singing and sport are taught in types of these secondary schools.

Only the students who have graduated with good marks from the fourth grade of the elementary school are allowed to enter the secondary schools on the basis of a special examination, held between August 27—31 and given by committees of three people, in the state language, mathematics (and in the minorities institutions from the minority language). The registration is only temporary—as in Prussia and Switzerland—until the pupils show their abilities later. If a student does not prove his aptitude

during the first semester he is discharged. The grades are from mark 1 to 5. Instructors from each class decide whether the pupil is to be permitted to enter a higher grade; such pupils must have at least the grade of 3. If the grade is lower than 3, they must take another examination at the beginning of September.

At the end of the fourth year, the pupils must pass a general examination. The passing permits the pupil to enter the higher grades, to enter the teachers colleges, and the four-years professional schools both commercial and industrial. The pupils who had finished the fourth year with the average of 2, and a good mark for "behavior" do not have to undertake the examination. Others are examined on the state language, history and geography of Yugoslavia, mathematics, Latin in a Gymnasium and a living tongue in the Real Gymnasium and Real School. All examinations are oral, with the exception of the state language, which is a written examination lasting two hours.

At the end of the eighth year, the pupils must pass the "maturity examination." They must have finished the eighth year with at least "good" (3) grade, and a "good" mark for behavior. The examining committee is presided over by a Ministerial delegate, while the director of the school is a vice-chairman. Other members of the committee are the teachers of the subjects in the eighth grade. The examinations are oral and in writing. The written four-hour examinations are in the state language and one living tongue. In addition, in Gymnasias in Latin or Greek, in Real Gymnasias in mathematics, and in Real School in mathematics and descriptive geometry. Students with the two highest grades do not take oral examinations, provided they have the highest marks from all the subjects in the eighth grade and from the natural sciences from the fifth to the eighth grade the average of the same kind. They must also have at least a "good" grade for behavior. The examination can be taken again in one year.

The oral examinations which are held three days after the written examinations consist of the following subjects: the state language and its literature, a living foreign tongue, universal history, national history and geography of Yugoslavia. In Gymnasias is added either Latin or Greek, in Real Gymnasias mathematics and physics and mathematics in Real Schools.

The graduates of Gymnasias and Real Gymnasias may study in the higher institutions of learning. It is necessary to have the "maturity examination" with Latin to get a doctorate. The graduates of Real Schools may study only in the technical schools

of the University. If they want to register in another university branch, they must pass a supplementary examination in Latin.

About seven-eighths of the secondary schools are supported by the State. The community where a state secondary school is being built must donate a lot.

In 1931-32 there were 170 secondary schools—152 state and 18 private institutions; 28 were boys' institutions, 18 girls' and 108 co-educational. On May, 15, 1932, there were 77,913 pupils, of which 52,983 were boys and 24,930 were girls. While 73,855 pupils were registered in state institutions, only 4,058 were in private schools.

Out of these 170 secondary schools, 153 were Real Gymnasias, 16 Classic Gymnasias and one Real School (in Belgrade). One hundred and thirteen had all the grades, and 57 were incomplete. For the purpose of saving, at the beginning of 1932-33, 2 Real Gymnasias were abolished.

According to the official census, Yugoslavia has 13,931,000 inhabitants. Hence 0.56 per cent of all inhabitants were registered in secondary schools. One secondary school averaged for 82,000 people with one student for 178 inhabitants. As one secondary school averaged for 82,000 Yugoslavs, each school had a comparatively large number of pupils, the number reaching 458. This high number, however, can be also explained by the fact that Yugoslavia is still lacking upper elementary schools, so that the lower secondary sections of Gymnasias often take their places. The number decreases considerably in the upper section of the secondary schools, as a majority of students graduate at the end of their fourth year.

—EDUCATION, BOSTON.

TO A RETIRED TEACHER

BY

MILDRED MARALYN MERCER

So many little feet were yours to guide
Down thru the years, but always they
went by,
And you must turn to other marching feet,
Your children just a while ; you held
the sky
A little closer for each child you taught,
You left your mark upon each youthful
face,
And oh, it was their love to you they brought,
And you have never found it common-
place.
To love, and serve, and smooth their path
a bit,
While shadows grew for you upon the
hill,
For you were serving for the love of it,
And now, your heart is marching with
them still.

—THE JOURNAL OF N. E. A. OF U.S.A.

UNDERSTAND YOUR CHILDREN

BY

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1. The New Outlook.

The present century is that of the child. On all sides there is an increasing interest in the child, his nature and his needs, and a growing concern is manifested over his welfare and education. It appears as if the child has just been discovered and in a sense it has been, for fresh knowledge of child development, new ideals and methods of education, habit clinics, mental hygiene, experimental schools, are not only in vogue but also have forced us to revise our everyday attitude towards children and their ways. Every advance in our psychological knowledge of children has revealed to us larger possibilities of their education and has strengthened our faith that through a fuller education and the right guidance and environment the inherent goodness in human nature can be brought out and freer and better adjusted personalities can be developed. So deeply has this realisation worked into our everyday thought that we have not infrequently begun to demand, secure and establish what we call "the rights of children." Our traditional attitude towards them is one of vacillation and easy indifference. Many of us in India think that our children belong to us by an inherent right, that they are a part of our indisputable and absolute possession as are our cattle and even womenfolk and that it is nobody's but our look-out how we treat them, whether we educate them or not, or how well or ill we educate them if we educate them at all. Others think that the child is always with us, why be so urgent in attending to his needs? His education at home is a matter of adult leisure and recreation. If we learn about any of his harmful traits, we are inclined either to minimise their importance and excuse him for being a child, hoping that he will outgrow such harmful traits with age or to take to radical, if not too monstrous a step of beating, strapping or practising some other ingenious device of mental and bodily torture. But if the child is the father of man, if he or she is the man or woman of tomorrow, can there be anything more urgent and important than

the demands of his physical, mental and moral growth, and should not we bring in the latest and the most reliable scientific knowledge to bear upon the supreme and vital task of child upbringing? Parenthood is a sacred trust, it involves not only privileges but also obligations. Every parent is a trustee of the future progress and happiness of the race and it is his bounden duty to work for it with knowledge and care.

2. Objects and values of child study.

Let us try to understand in greater detail some of the values and purposes of child study. What after all is the use and objective of getting into closer contact with the little people at home and what new advantages are likely to accrue both to the teacher and the parent from such knowledge and understanding of childhood? The problem is anything but simple and that for two reasons. In the first place the child is a growing personality and we have to obtain a genetic picture of individual development through all stages. No one stage is intrinsically more important than the other. Each has its special scope, it leads to the other and should be studied and treated in relation to that which follows. Secondly our knowledge and insight in this field is growing day by day and with this growth newer values are sure to dawn on us.

3. Science should replace Instinct.

We cannot help educating our children, if not intentionally, then unintentionally. The process of education starts very early and goes on irrespective of whether we will it or not. The child from inner necessity is urged on to react to his environment and is in its turn affected by it. This education is inevitable and its tragedy is that it has no direction, no motive and no purpose. The child drifts on rudderless in a world of chaos. Its only hope is the parental instinct. In the past when life on this globe was simpler this instinct was sufficient to guide the child through such difficulties as he had in his early years. Today life is thoroughly socialised, so closely knitted round highly evolved institutions, that the instinct alone simply will not do unless it were controlled and educated to meet ever-changing demands and situations. The parental instinct, suited admirably to the needs of the primitive life, fails to deal with those of the present age. Its inadequacy has been brought home to us by the recent growth of psychological knowledge and its manifold applications to the study of children. It has revealed to us that the earliest days of childhood play a rôle whose importance has so far been grossly undervalued, not to say completely ignored, that before the age

of ten when the task of education is popularly believed to begin, the child has formed most of the "mind-sets," received most of the shocks and is no longer as plastic as we assume it to be and that most of the stubborn mental disorders and consequent instability, so widespread in minor degrees, are traceable to the early repressions and taboos. Should we in the presence of such reliable knowledge, resulting from methodical analysis, allow ourselves to be guided by blind faith, superstition and impulse? If knowledge and science give understanding and discrimination, if they impart direction and purpose to all that we undertake, certainly they are needed most in the all-important business of education, child-study and child guidance. If our influence on the development of children is inevitable, let it be modified by science, knowledge, understanding and discrimination, rather than be controlled by blind impulse which may work for good or for evil. "Understand your children for I am sure you do not know them." This reproach of Rousseau administered to Europe a century back may well be administered now to parents and teachers in India. If we wish to improve, extend and vitalise education, our efforts and measures should be based on our knowledge of child nature and his needs. If childhood shows the man as morning shows the day, if it reveals the potentialities, the extent and scope, of his future development and perfection, it deserves far more attention, understanding and consideration than it has hitherto obtained. Only then can we hope to eliminate a good part of the waste and miseducation that has become a fashion to bemoan.

4. Knowledge dispels doubt and anxiety.

Almost every parent has the good and welfare of his children uppermost in his heart. He feels perturbed over any slightly undesirable trait displayed by his child. Most of the parents are quite conscientious in their anxiety about the welfare of their children, but they themselves are responsible for their education. What a child becomes in later life is to a large extent the reflection of his parents' ambitions and wishes, their hopes and fears, their thoughts and ideals, in brief their entire behaviour and attitude towards the child. If parents realise this, they should start worrying as to what they should do, how they should set about the task of his education and how they should modify their own behaviour towards him. Let their sense of responsibility steer clear of vague anxiety and fears, and become constructive by calling in aid of knowledge and wisdom. Let them not learn half-truths about children through haphazard trial and error for

slight mistakes may have very far-reaching consequences. Let them profit by our fast increasing knowledge of children and through understanding manipulate the environment, adapt it to the needs of their child and thus assure a wholesome growth of his personality. The undesirable traits of the child will no longer alarm them but will present them fresh opportunities for knowing and thereafter educating, their child better. Thus child study and understanding will dispel doubt, anxiety and alarm which disturb and mar domestic peace and consequently the growth of children.

5. Child study—a social need.

But inducements to understand children aright are not only subjective and domestic but also social. If children are successfully educated, they benefit not only themselves and their parents but also the society at large in which later, as adults, they will live, move and have their being. Thus it is that child education and guidance offers vast opportunities for social reform and reconstruction. Looking about us today we find that in no age was society more unstable than it is at present. "Everywhere old forms are collapsing, old methods are proving more futile, chaos is increasing, civilisation is endangered." But whether this change is for the better or the worse, it no doubt calls for a readjustment, a new orientation in almost every direction and we are face to face with the problem of creating a culture adapted to modern life, of building a new and better world. The brick and mortar for building this humanity of tomorrow is a living material which grows, develops and hardens into shapes too difficult if not impossible, to alter and recast later. Any attempt, therefore, to engraft the new culture on humanity must begin with the early impressionable years of childhood. What children are and what they can be should be of prime importance not only to the parent and the schoolmaster, but also to the legislator, the priest, the public worker, in fact to everybody who is anybody in the wide field of educating the younger generation to "a finer shape, a fuller reality."

6. Child and adult differ in kind.

One of the most important truths which knowledge of child life has made clear is that the child and the adult differ not only in degree but also in kind. Two decades ago even front-rank psychologists held this view that there was no reason for studying the mind of the child as distinguished from the mind of the adult. They maintained that "If we could find out how the mature mind

was constituted and how it functioned, we would know how the child mind was constituted and how it functioned, because the latter was simply a miniature copy of the former.”* They did not realise “that in the development of the human mind from birth to maturity changes occur which make it different, not only in strength or range or power but also in other important respects, in the adult stage from what it is in infancy, childhood or youth.”* Even today many people really believe that the child is a small man or woman. Nothing could be farther from truth or greater injustice to child nature. Do you measure the food needed by a young man of twenty and divide it by his years to find out the amount of food needed by a child of one? Or do you decide it by proportionate weight or size? Does the doctor prescribe for the child simply the twentieth part of what he would have prescribed for the young man of twenty? Does the teacher administer to the first primary class simply one-tenth of the knowledge he imparts to the tenth class boy? His food, treatment and education are decided on a different basis than a merely mathematical proportion. The child is a creature different from the adult. His needs and problems are different, to understand him in the light of adult motives and impulses is to understand him not. The mental life of the child has its own laws and we grown-ups find it difficult to study because we have forgotten how we used to feel and behave when we were children. Besides children are ever-growing and changing. Today the child is different from what he was yesterday and he will be still different tomorrow. This observation may be discounted by many whose knowledge of children does not go beyond that of outward features and behaviour. No doubt the child continues to be the same physical mechanism, he has the same sensitive organs and his responses are not very much different from day to day, but his interests and attitudes do suffer rapid and constant changes. What appeals to him today, stirs his imagination and commands his attention, may pass unnoticed tomorrow. At one time he is susceptible to some influences and quite indifferent to them later. Children cannot help us to understand them for they are not likely to understand our catechism. They are quite innocent of adult logic and their answers would hardly satisfy our standard. The child is original; the same act may have different motives in the child and the adult, in different children or in the same child at different times or ages. An adult breaks a thing because he

* The Child : His Nature and His Needs by M. U. O'shea.
The Children's Foundation.

no longer regards it as valuable, because it has annoyed him, or because he wishes to annoy its owner; and a child may break and destroy things because he loves them and out of his love wishes to move them more rapidly than they ordinarily would, because he is so full of energy that he cannot sit still, wishes to do something, to wreak a change in his environment and throws it to have the sheer joy of exercising his limbs, because he is curious to know what will happen when it is broken, or because he is tired of playing with it for so long. For children the distinction between constructing and destroying does not exist, as they have no knowledge of the values of things and when they construct or destroy, they do so most often to satisfy their sense of self-expression, both physical and mental. Thus all those who have anything to do with children should guard against the danger of considering the child a mere miniature copy of the adult and of interpreting its behaviour in terms of adult motives and interests.

7. Individual Differences among children.

Among children as well as among adults, the fact of individual differences is too patent to pass unnoticed. No two children are alike. They vary in size, health, knowledge, intelligence, temperament and in numerous other characteristics, physical, mental and social. "There are the giants and the dwarfs, the tall and the short, the blondes and the brunettes, the beautiful and the ugly, black and white, good and bad, choleraic and phlegmatic, brilliant and stupid, blue-eyed and brown-eyed, and other extremes too numerous to chronicle. Between these extremes there are all grades and shades of apparent differences. Besides these obvious differences there are innumerable variations which are not so apparent and hence thought not to exist."* This fact of individual differences has some important bearings on child study and guidance. In the first place every child should be given individual attention and study. Though parents and teachers are called upon to study children in general, to know what general tendencies and impulses they display, to trace their growth and development under certain general influences and to label them into certain general heads as superior, inferior or normal, they should know *their* children individually and intimately in the light of this knowledge of childhood in general. They should proceed to apply this general knowledge to the particular child they have under their charge after due consideration of the peculiar situation, influence and environment in which

* Bolton : Psychology.

he is being brought up. The science of child study can only indicate broad lines of child guidance and in view of numerous individual differences among children, individual deviations of treatment shall have to be determined by individual parent and teacher in the light of what he or she knows about his or her child. The vast amount of knowledge about children should only help to suggest, not prescribe, what treatment and guidance *your* child needs. Do not treat children *en masse*, nor think that the method which helps your neighbour with his child help you with yours, though you can profit by his experience. Each child is a unique individual and deserves and needs individual treatment.

Again we should not fret if children under our charge do not turn out to be just what we would like them. Often parents get impatient that even though their child is quite healthy and normal both in body and mind, he is far different from the spirit they had wanted to infuse into him. This alarm is baseless, for every child starts with his own mental capital and invests it in his own way. His slight variations from the parent stock far from disappearing, grow, for it is not easy to provide identically similar environment, and thus lead him to develop different tastes, inclinations and traits.

In a family with more than one child parents should recognise the fact of individual differences a bit too well. They should know that while A takes to heart every piece of instruction, B treats it lightly and C is sure to go against it impulsively. Parents who recognise this difference do not treat each child in a uniform way, under pretence of fairness and justice, but modify their attitude and treatment in the light of each individual child's temperament and mental make-up.

8. The importance of early years.

Another fact that the scientific study of child life has emphasised is that the process of education starts very early. Even long before parents have any idea, the infants under their care are forming their mind-sets and permanent attitudes to life and environment and hardening into shapes which later it will cost dear to alter and reconstruct. Whately tells of a mother who once asked a clergyman when she should begin the education of her child, which she told him was then four years old. "Madam," was the reply, "you have lost three years already. From the very first smile that gleams over an infant's cheek your opportunity begins." The earliest days of childhood play a rôle whose importance has so far been grossly under-estimated, not to say completely ignored. "It is usually assumed that the 'serious

task' of education must begin round and about the twelfth year of life, some persons hold that before a child is seven years old education 'is of no moment.' Now according to the findings of psychologists, a child of seven has already gone beyond the stage when its affective life is plastic, for the decisive shocks come before the sixth and even before the fourth year. A child of tender age should never be handed to the care of second-rate persons. Psycho-analysis emphasises the fact that a very young child's psychical development is already well-advanced and extremely complex, so that education is of primary importance from the very outset."* The child mind is extremely sensitive and, as psycho-analysis has revealed receives several rude shocks in infancy, as for example, at the time of weaning, separation from mother or from fraternal rivalry. A wise parent will take care that such shocks are made as mild as possible through understanding, sympathy and goodwill.

9. Study the whole child.

Again the danger of studying and interpreting child behaviour in isolated acts is very great. A child is an incipient personality, his mind and character is an organic growth and his casual behaviour is a poor index to what he is now or what he is likely to become in future. If the same outward act can be differently motivated in different children or in the same child at different times, it is very necessary to know him more intimately in greater detail and to interpret his motives after due consideration of his habitual behaviour. Study the child as a whole, not piece-meal. The integrated whole can seldom be deduced from our knowledge of the parts, the functions of the organism are something more than the functions of mere organs. Therefore if we are to deal with children at all, we must deal with the entire child. That should be the focal point in our study. Instead of singling out particular acts and activities of children, we should try to reach the basic unity of individuality which underlies them. To that end it is very necessary that we know the child-in-relation; we should know the child at home, the child in school, the child among his playmates, the child among his brothers and sisters and so on.

10. Parents and Teachers are a part of the child's environment.

Child study and guidance is keenly alive to the influence of parents and teachers themselves. Both of them most often forget

* C. Bandouin : The Mind of the Child.

that they themselves are a very important and effective part of their children's environment. They are not only responsible trustees of the child's possibilities of future growth and development but also an inevitable model for the child to follow. The parent needs to be a good example, a good model for the child to copy and try to emulate. Children are so situated that quite instinctively they desire to be like their parents. "The parent is the first model and it is very important, that it should not fail." It is not what the parents say and profess that is of significance, rather it is what they do and what they are. Wise parents will not only preach, instruct and coax but live and practise such ideals with which they wish their children's personalities to vibrate. They will share their children's joys and sorrows, tasks and tribulations, their play and work, most intimately and informally and it will be during this intimate and informal community living that they will be able to project into their children's personality details of desirable standards of moral and social conduct. When there is a mutual give and take, and a bond of respect based on understanding and sympathy, an acceptance of each other's values develops more easily. Verbal instructions and precepts do not avail if they are contradicted by the everyday behaviour of parents and teachers themselves. If the latter behave consistently, conduct themselves with dignity, honesty, frankness and sympathy, if their actions are marked by spontaneity and self-control, if they are masters of themselves and hold out a worthy example the children under their charge will surely develop the same ideas and ideals. Adults are a very powerful part of the child's environment and their influence will be for good or for evil, if they set a worthy example in their own behaviour.

11. Repression.

The most common defect in the attitudes of adults towards children is over-repression. The child is not allowed to feel and behave as a child and to develop his inner self along lines suited to his inherent nature. No doubt the behaviour of the child in early age is crude and undirected and will continue to be so if it is not adequately directed by education, example and precept. But to many parents this direction means nothing less than a continuous and uncompromising system of "don'ts" which provide but too little opportunity for self-assertion and the development of initiative. Children are hedged in with prohibitions and repressions that stifle any spark of initiative that may be smouldering within. Parents dominate them autocratically.

and they lose all self-confidence and courage, growing into timid, dull and stupid people. Do not, therefore, in the name of discipline, order the children about and deprive them of legitimate freedom of play, assertiveness, initiative and social intercourse. Let them breathe greater freedom, trust and courage. Let them take the initiative in as many things as possible, make a choice and arrive at a decision. Let them meet difficulties in the way and solve them. Give them more opportunities for self-expression, originality and development. In fact let every child be child. "The child has a right to be a child. The more completely he is himself, the more apt he is to become an adult who is worth while."

12. Problem children.

But with the best of intentions and effort on the part of both the teacher and the parent, the child may not be able to adjust himself easily to the new situation and may develop traits and attitudes which interfere with his adjustment in the family, school or social group. He may grow to be a "problem" or "difficult" child whose behaviour is not in line with those who surround him and who is a source of trouble and annoyance to his elders. He may be addicted to telling falsehood, stealing, phantasy, disobedience, or to any of the several forms of social mal-adjustments. Sometimes his behaviour is the result of very commendable motives but the method he follows to carry them out is at fault. A desire to please is not a bad motive but if it leads to stealing money from home in order to buy titbits for friends, it is hardly desirable. Such problems in child behaviour are common both in the home and the school. How are we to tackle them? Very often such problem behaviour has developed in spite of the effort and care on the part of parents and teachers, due to influences over which they have no control nor are likely to have any. But this does not mean that they should excuse themselves on that account and sit down under a feeling of despair and ineffectiveness. Mental hygiene offers the hope and the regimen. Let them set about studying such behaviour, find out its peculiar motives and circumstances, alter undesirable influences and environment, and re-educate the child to a better social adjustment. Happily we have amassed a great deal of knowledge about children based on extensive studies of individual behaviour and in its light it is growing more and more possible to re-educate children to a healthy and harmonious living, integrate and absorb them into the community and ensure social

progress; for without harmony progress loses both meaning and value.

13. Make Children Normal.

Parents and teachers and all who are in any way responsible for the upbringing of children should work with understanding, knowledge, insight and sympathy to make their wards normal, that is, like the great majority of people, capable of growth, development and achievement. A normal child will have normal lapses such as he will outgrow in the course of development. A child throws things, cannot carry his cup as well as we do, cries at the smallest provocation or obstruction but we do not take much notice of them for we are confident that with age even unassisted he will steer clear of these handicaps. Thus a normal child is not a perfect or ideal child, such a one would have his abilities so fully developed as to leave no room for further development. On the other hand the normal child will require all the help and encouragement which the common run of children require. He will be neither super-normal nor sub-normal. Of course it is difficult to draw a hard and fast line to denote the average or the normal and most of the children do show slight deviations from the normal on the plus or the minus side, for after all we are dealing with growing organisms not static things. But there is certainly a standard of efficiency which most of us can expect from normal people. The supernormal, quicker at knowing and doing things, will need superior opportunities for a freer and fuller growth of his superior abilities, and the subnormal, inferior in knowledge and accomplishment, will need an extra dose of attention and encouragement to breathe greater self-confidence and come in line with the average. Mistakes every child makes. Whoever grows, tries, errs and improves and the child growing at a rate far faster than the adult is liable to make more numerous mistakes and stumble at every new advance. But his lapses far from being run down and condemned, should be approached with love and sympathy. A friendly lead, a kind word and a helping hand will smoothen the course and avert the stumble.

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THE FILM IN ART EDUCATION

BY

SHEIKH IFTEKHAR RASOOL

So far, very little use has been made of the film in art lessons. The prohibitive cost of an adequate projector, the danger of highly inflammable material in untrained hands and the absence of films specially designed for art instruction are the main reasons. Now that serviceable projectors have become relatively cheap and films no longer dangerous to handle, two important obstacles have been removed. It only remains to secure the right subjects and have them properly treated, for projector, screen and film to become part of the ordinary equipment of a School of Art.

Movements Limited.

A great many of the teaching needs of the School of Art can be met by the lantern and the epidiascope. There is no likelihood of the film superseding the latter instrument, which has the special advantage of being capable of projecting on the screen a picture, in its natural colours, of anything that can be placed on the projecting table inside it. In its unique way it is quite as wonderful an instrument as the film projector. It can project 'still' pictures with much more reality of effect than can be produced by any kind of film negative, because its pictures are made of pure coloured light, without the intervention of glass, celluloid or other film substance.

But, as with the magic lantern, the capacity of the epidiascope for representing movement is severely limited. Here the film brings in a new factor possessing infinite possibilities in class teaching. Certain kinds of movement cannot be conveniently demonstrated, or cannot be demonstrated at all, in the class room—figures of men and women in action—running, jumping, climbing, playing games, and the like. It would be possible in a life class, with an intelligent model, to demonstrate a man reaping with a scythe; to take him repeatedly through the movement of his stroke from beginning to end; to arrest the movement at any part of it for the purpose of recording the resulting attitude in a sketch. It would also be possible for a model to give a demonstration of leaping—a feat in which the body and

limbs undergo many rapid changes of position, before, during and after. But in this case, there could be no arrest of movement for the study of these changes. Only the film makes that possible, and the best for the purpose is the slow motion film.

Slow Motion.

The serious student of life drawing cannot remain satisfied with his studies of the static figure. These acquaint him only with the characteristics of human structure at rest. As soon as he desires to represent a figure in action he has either to imagine it, or, having taken means to witness the appropriate action by someone, somewhere, and to make rapid sketches of it, he may draw it from memory. Now, for the first time, we have at our service the means not only of recording every continuous phase of any action, but also of separating them minutely for deliberate observation. Certain effects which have depended on the observer's ability to memorise a number of instantaneous observations—such as the effect on surface contour of momentary, energetic contraction of muscles—can now be studied at leisure by stopping the film at any required point. The only danger to be avoided in this new means of dissecting motion is that of accepting any arrested phase of motion as necessarily expressive of the whole motion. We know from experience of snapshots that although they may be truthful pictures of action at given moments, they are seldom true as general impressions. On the other hand we first learnt from the snapshot that although the conventional rendering of a leaping horse, with all four legs extended gave the general impression of the action, it was wholly untrue at any moment of it.

Granted a teacher capable of using the slow motion film intelligently, its possibilities of really practical use are endless. All types of movement can be made available for interesting and profitable class lessons; not only the animated actions of human figures and animals, but also the action of waves, of reflections in smoother water, of trees in wind, indeed of all active creation. A good deal of inanimate material, subjected to movement which an artist may have occasion to represent, can be similarly studied.

Educative Value.

Some of the films produced for popular entertainment, showing the growth of flowers from bud to blossom (the exact converse of slow motion practice), would make admirable demonstrations for students of floral design. Such students would profit equally from film demonstrations of the mechanical

processes by which designs are reproduced in material for the market. It is not possible to bring manufacturing operations into a school, nor always convenient to take students into a factory. Again the film is the most practicable alternative. All the processes, for example, of power loom weaving, wall-paper and fabric printing, poster lithography, metal spinning and stamping, glass blowing, and a large number of other trade operations could be illustrated. It would be the easiest way of supplying the insistent demand that students of industrial design should have an acquaintance with industrial processes. The more one thinks of the possibilities, the greater seems their extent. The film could bring visibly and vividly into the art school all necessary technical information which many students have now to acquire, very imperfectly, from books, magazines, class descriptions or hearsay.

The need for such films in India is very great. It is to be hoped that some enterprising producer will soon take the question of supply into his own hands and prepare films for his people, as teachers now prepare text-books. This in time will lead to a firm of educational film publishers as we have in other countries, and circulating film libraries of the type common in many countries. The time is ripe for someone to begin.

A PLEA FOR ADULT EDUCATION

BY

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During the last five years there has been great dissatisfaction with the present system of education in India. Loud complaints come from every direction that one of the chief causes of the present unrest in the country is our defective system of education. Unemployment among the educated classes is assuming serious proportions and is rightly attributed to the much too literary education that we give to our boys in the vernacular and English secondary schools, and to the indifference of the universities to the preparation of our young men for careers. Speakers from the public platform, writers in the columns of newspapers, and educational authorities are all urging the importance of reforming the secondary school. But any reform, if it is to be satisfactory, must not content itself with making slight alterations in the middle of the structure: the process of reconstruction should embrace the foundation and superstructure as well as the middle of the structure.

It is true that the extension of the political franchise has brought the question of "mass education" to the fore-front. No one will deny that it is necessary for the electorate to possess knowledge to exercise the right of voting judiciously; but mass education cannot be achieved except by a system of compulsory and free education. This means funds, and funds are in India proverbially shy. Expenditure on primary education must be increased many times if we can ever hope to have anything like mass education. And even if the will be there, and funds be available, it will take a generation to wipe out illiteracy. Are we then to wait till the dawn of that happy day in order that other beneficial schemes may bear fruit? Should the scheme of village up-lift wait? Should the schemes of village sanitation and health be held up? Should efforts to reduce the frightful death-rate, particularly of infants, be held in abeyance? Should fathers and mothers continue in blissful ignorance of the art of bringing up children? Should the young men and women, who have fortunately received a rudimentary knowledge of the three R's, be allowed to lapse into ignorance in the humdrum life of

poor cultivators? Should our grown-up men and women be denied the joys, the mental relaxation and the opportunities of gathering new and useful information which the habit of reading can give them? Is not the present system of casting votes at municipal, district board, council and other elections held in rural areas a mere farce; when illiterate voters are led to the booth by an influential candidate's agent and are practically compelled to vote for that particular candidate; when they ask the polling or presiding officer to make the mark for them, and when—as sometimes happens—they even forget the name of the candidate for whom they have been brought to vote and whose name they were required to learn parrot-like? How long are we to allow many of the evil customs in society to continue? It is all very well for a few educated men to take interest in the revival of the "folk dance" and "folk songs" of our villages, but that is only a pleasant pastime of a few leisured and enlightened men. It does not rouse the interest of the average adult villager in all that is of value to him in the expansion of his intellect, in widening his sympathies, in opening his eyes to the beauties of Nature, in increasing his knowledge of useful arts, in rousing his sense of responsibility as a householder, father and citizen, although it does certainly bring our educated young men and women closer to the humbler countrymen in the villages.

This is an argument in favour of adult education, and that is why we should not exclude adults from any scheme of educational reform that may be introduced. It is often urged that the average adult villager has not the time to receive such education, but experience has shown that it is worth the time and labour. The aim should be to educate not only a few intelligent, young persons, but to bring the fruits of knowledge, experience and intellectual intercourse within the reach of all men and women who are engaged in the ordinary occupations of life. All will admit that people have a wonderful power of finding time for anything that they are keen on doing. If we can once convince the public of the intellectual, moral, social and political value of adult education, they will be ready to participate in the working of the scheme.

It is true that funds are required for the success of a national scheme of adult education, but this consideration must not frighten the ardent reformer and social worker. Every adult must understand that he is not a mere wage-earner, but that he is a citizen of a civilized Government, a member of a great nation and those of us who have been fortunate enough to receive secondary and higher education and are comfortably placed in

life, should remember our obligations to the humble, illiterate toilers in the fields who, by the sweat of their brow, provided the funds from which the cost of our education was met. Non-officials are expected voluntarily to offer their services in an honorary capacity as masters and mistresses of classes for adults. And in this country, where *Hukum* does wonders like Aladdin's lamp—from the *Hukum* of the highest official to that of a petty peon of a local self-governing body—all inspectors of schools, professors of universities and colleges, teachers of Government and aided schools and also of schools maintained by the District and Municipal Boards would do well to understand that it is a part of their duty to assist actively in Adult Education in the evening. Classes may be held in the local school and suitable office buildings as well as in the open air, whenever possible, and the school and office furniture may be utilized for the purpose. This will not involve a huge expenditure, and I am sure that if a Five-Year Plan be adopted, the result will be simply astonishing. I may add that this is done in several European countries such as Switzerland, Hungary and Czechoslovakia.

I know that all far-reaching national reforms, particularly in the field of education, must stand or fall with the teacher. A great German educational reformer has truly said of the teacher: "The best curriculum cannot give him wings; the worst cannot restrict him altogether. The kernel of his success lies in the vital force which he develops in his pupils. "Let the humble village schoolmaster be raised from his present low position in society, and you will find him putting his shoulder to the wheel of national reform in the domain of education. The Germans are, above all, a practical-minded people. Look at the two hundred and fifty Folk Colleges that have sprung up there with an excellent organization. Their existing schools and colleges have opened their doors to the adults in order to bring the joys of literature, science, travel and romance within sight of the humblest tiller or labourer. In the little country of Hungary teachers are appointed on the clear understanding that they will have to participate in the national work of adult education. The system of adult education in Denmark is known all over the world. There 40 per cent of the students receive a State grant, the average amount being about £3. In addition, other grants for the teachers' salaries, buildings, equipment etc., are sanctioned. It is one of the important duties of the local boards of that country to provide facilities for the education of the adults. I need not mention the work that is being done by the United States of America in this direction, because it has already outstripped other countries.

No educational, social, sanitary or other reforms will prove satisfactory in the long run if we shut our eyes to the need of Adult Education. For our grown-ups we need Adult Classes, Circulating Libraries, Travelling Lantern Lecturers, Summer Classes in Health Instruction, Poultry Farming, Dairy Farming, Agriculture, Fruit Culture etc.; but above all we want a band of enthusiastic workers willing to work for the love of the work.

THE 22ND INTERNATIONAL TRAINING COURSE FOR TEACHERS

Will be given by DR. MARIA MONTESSORI in London from January 25th to June 18th, 1937, under the auspices of the.

INTERNATIONAL MONTESSORI ASSOCIATION,
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In this Course Dr. Montessori will for the first time deal with the four plans of education, as she conceives them throughout the span of human life.

EDUCATION AS A HELP TO LIFE.

Education ought not to be merely a programme of work to which the child must adapt himself. It ought to be a help to development starting at birth and accompanying man through the four great epochs of his life during each of which special qualities and faculties are being developed.

The First Epoch: Construction of the physio-psychic individuality.

The first epoch is that of the child's constructing his personality by actively acquiring independence in the material and psychological activities of life in his own environment.

The Second Epoch: Construction of the social individuality.

The second epoch is that of puberty in which the child becomes interested in social life and a special programme has been made to provide for the characteristic needs of this stage of life.

The Third Epoch: Construction of the moral individuality.

The third epoch is a period of study more resembling that of university life which is followed by a special preparation for the maturation of a moral attitude to guide the activities during the rest of life.

The Fourth Epoch: "The Active Personality."

The fourth epoch is the life of adult man in activity to exploit the natural and cultural resources of his environment towards a more enlightened and general welfare.

Owing to the limitation of time special attention will be given to the first epoch (from 0—12 years of age). A more detailed description of the features of this epoch follows, showing how and which elements of culture the child acquires. These include also those parts which were considered "dry" or "difficult," but which the child has been shown to study with great enthusiasm and success when offered at the proper time and in a special manner.

FIRST EPOCH.

CONSTRUCTION OF THE PHYSIO-PSYCHIC INDIVIDUALITY.

During this epoch which may be divided into four periods, life shows strong tendencies towards independence and free activity. Seconding the child's needs, he reveals to us the *Laws of Psychic Growth*.

First period: BIRTH AND INCARNATION, 0—2 years of age.

With birth the child becomes an independent organism and functions for himself, but, being born inert, he has to actively acquire all movements, from the powerful ones of locomotion to the fine ones of speech. Being new to the world he must *orientate* himself among the mass of sensations and thus he acquires *consciousness* and the *means of expression*.

The need of ORDER related to the need of REPEATING the same movement.

Second period: "MOEBELKINDER" Sensorial Education—Refinement of Movement, 2—4 years of age.

Sensorial apparatus to help the child to *classify* the impressions of the senses. Exercises of *practical life* and apparatus with an external aim such as buttoning and lacing, etc.; to give the child the opportunity to acquire greater independence and more refined *coordination of movement*.

Laws of the child's activity: INDIVIDUAL WORK, REPETITION OF EXERCISE, SENSITIVE PERIODS: provisions taken by nature to ensure perfect acquisition of faculties.

Conflicts between the child and the adult. Defence of the children in "TANTRUM." DEVIATION FROM NORMALITY as a result of these conflicts. FALSE CHARACTERS shown by the deviated children and considered to be the true characters of man. NORMALIZATION through free activity. THE TRUE CHARACTERS OF CHILDHOOD.

Third period: THE LEARNING OF THE THREE R's, 4—6 years of age.

Difficulties due to their being formed by *complex elements* the acquisition of which belongs to different sensitive periods. ANALYSIS, embodiment of each item in sensorial apparatus. *Indirect preparation* by presenting these at the respective sensitive periods. The "EXPLOSION" into writing,—six months before reading. WRITING as ANALYSIS, READING as SYNTHESIS of thought.

The first Ten Digits. The mechanism in its *static and dynamic* form of the *decimal system*. The passages. The active sensorimotoric incorporation of sum-tables. Addition and Multiplication, Subtraction and Division in their NATURAL DIFFERENCES.

Laws of work: Understanding and knowledge not FINAL AIM but STARTING POINT of spontaneous individual work. The TRAINING of the mind through ACTIVITY. The seeking after MAXIMUM EFFORT. Rise into ABSTRACTION as a natural consequence of material activity.

Fourth period: RAPID AND ENTHUSIASTIC ABSORPTION OF CULTURE, 7—12 years of age.

The child while still active in individual construction becomes more absorbed in exercises of a mental order. The capture and *isolation* of the items of culture in an apparatus which supplies the child's activity with KEYS to new and wonderful worlds. The growth and development of interest.

Algebra as explanation and expression of arithmetic. The *geometrical* formula for extraction of square roots, etc. The revelation through the use of the apparatus for medians and diagonals of the theorem of Pythagoras; spontaneous discovery that the same is true not only for squares but for all regular figures.

Psycho-grammar. The family-groups of the *parts of speech*. The *Verb* as the voice of a storyteller. *Comparative study of style*.

Cosmic forces as guardians of the equilibrium of life. Their revelation in *geology* and *biology*. *Geography* as the present stage of geology.

Development of civilization in relation to geographical facilities (protection by mountains, seas and rivers as ways of communication). Progress around basic discoveries. Power and possession as factors in the shaping of *History*.

Science. The *isolation* of physical laws. Basic apparatus for their demonstration and combinations.

Chemical reactions and laboratory exercises. The combination of chemical and physical forces ruling the earth.

Life as a *cosmic force*. The *Unity of Design* and the infinite *variety* of details. The "*Work*" of natural elements and all expressions of life to the *maintenance of cosmic equilibrium*.

REVIEWS

Report of the Vernacular and Vocational Education Re-organisation Committee, 1936. (Price Rs. 2. Government Press, Rangoon.)

This "lucid, interesting and comprehensive report" is the outcome of the strenuous labour of a representative committee of eleven members under the chairmanship of Mr. A. Campbell, M.C., I.E.S., Assistant Director of Public Instruction, appointed by the Government of Burma (Ministry of Education) to examine practically the whole field of pre-University education in that province. The Committee prepared a questionnaire covering a variety of topics, *viz.*, general, finance, wastage, compulsory education, Ministry of Education, Inspection, recognised schools, monastic schools, girls' education, medical inspection and care, teachers, payment of salaries, fees, curricula and text-books, teaching of English, examinations, scholarships, vocational training, wireless broadcasting, Romanisation of Burmese written character, education of children of Non-Burmese indigenous and non-indigenous races; and issued three thousand copies to persons and associations throughout the province. About 450 replies were received which were collated and analysed while about 60 persons tendered oral evidence. The Committee also inspected especial institutions and made enquiries locally. Their recommendations only occupy about fifty-five pages while in about 400 pages are set forth the materials on which these recommendations have been based. It was a big enterprise that the Committee undertook but they carried it through with conspicuous success. The credit for it is in no small measure due to the chairman of the Committee.

The most important recommendation of the Committee is that the system of anglo-vernacular and English schools be placed on a statutory basis, and together with the vernacular system should constitute a single system. As a necessary corollary to this the Committee recommend that the public service of education should be governed by a specific consolidating Education Act and that a statutory Board of Education with the Minister of Education as President should be charged with the responsibility

for the provision and control of education. The Committee also recommend augmentation and better recruitment of inspectorate, reconstitution of education committees and provision for more adequate protection for the teachers against wrongful dismissal. In order to prevent wastage the Committee have recommended a survey of the existing education provision to make plans for ordered and progressive developments during prescribed periods of 5, 10 and 15 years. The Committee have fixed the minimum age of 6 years for admission to schools and 18 years for admission to universities. They want the government to adopt the Hadow Report with suitable modifications. They recommend (i) that the primary department of schools should consist of standards I to V for children of the age of 6 to 11 years; (ii) that the post-primary department should consist of standards VI to IX for children of the age of 11 to 15 years; (iii) that the pre-university department should consist of standards X to XII for pupils of age 15 to 18. It would be of interest to note that in schools, in which Burmese is used as the medium of instruction and the second language is English, the instruction in English should be based on Dr. West's system or "Faucet" system or the system known as Basic English. The Committee are of opinion that only vocational bias and not vocational instruction should be attempted in post-primary schools. The Committee further recommend a public examination at the end of the primary course and another at the end of the post-primary course.

The Committee do not advocate the abolition of written examinations but recommend to the Government the establishment of a Department of Research in Education as a step towards more satisfactory methods of assessing the educational development of pupils.

With regard to vocational education the Committee have recommended that additional facilities for vocational education should be provided only when there is a reasonable prospect that pupils who undergo the vocational training will secure employment consistent with the training.

We most cordially commend this remarkable compilation to the careful attention not only of the persons who are in educational work, but also of publicists who are engaged in seeking solution to some of the outstanding problems of present-day educational politics.

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Arithmetic Work Books For Classes III and IV and for Classes V and VI in Hindi. (Two annas and three annas respectively. Rev. E. W. Menzel, Bistrampur, C. P., via Bhatapara.)

This is an attempt to provide the pupils to get a maximum of practice in elementary arithmetic in a short time. "Each of the fundamental processes starts out with very simple exercises. But if done at the required standards of speed and accuracy they should prove to be good preparation for the harder problems to come." The speed and accuracy averages are taken from work-books published in U.S.A. and are not to be taken too seriously. The teacher is advised to work according to directions given and to record the score of each pupil. He should test him again and again to find if the pupil has improved his speed and accuracy. The compilers have been successful in shaping a course which should be easy to follow in the class-room and which should provide a suitable scheme for homework. The directions given are concise and clear while the price is cheap. The whole series is well suited to its professed purpose.

Bhasha Kaumudi: All India Hints on Hindi (through Gujrati), By P. S. R. Tewari. (Re. 1-5-0. P. S. R. Tewari, Sultanpura, Baroda.)

This book is the outcome of investigation patiently and scientifically carried out amongst children in Baroda State. The rules of Hindi grammar and translation are clearly explained in simple Gujrati and the lessons are well graded. The course is very thorough and will prove useful to adult students as well. That the author's efforts have been appreciated is clear from the preface and opinions written by Mr. Atma Ram Pandit Rajya Ratna, an Educational Inspector of Baroda State, Ramanlal Basant Lal Desai and others. It is a capable piece of work and deserves to be popular.

Balhit. Monthly. Editor: Kalulal Shrimali. (Annual Subscription Rs. 2. "Balhit" Karyalaya, Udaipur.)

This is an educational monthly meant for parents and teachers and contains literature dealing with childhood education. It is the organ of the League of Parents of Udaipur and advocates co-operation between home and school. The editorials are imbued with ideals of New Education Fellowship and the articles are useful and interesting. It is admirably suited to the needs of Hindi-speaking parents and teachers.

EDITORIAL NOTES

Vocational Training in India.

Vocational training is now-a-days the cry of the moment and we often hear the suggestion that education should be related to life. That our education has been and is too bookish not even the most enthusiastic supporter of the present system of education would deny; that the products of our system of education are unable to cope with the diverse problems of life is also conceded. But that the ordinary schools should attempt to train boys for particular vocations is a doubtful proposition. There is a good deal of loose thinking in the country about vocational training. It is often considered a panacea for the solution of that most intricate of problems, the problem of unemployment. Preparing boys for vocations wherein there is no avenue for employment is tragic and worse than the status quo; and converting the ordinary schools into vocational institutions without a survey of the needs of the various vocations of India is not statesmanship. We must relate education to life in a general way and not by the introduction of vocational training in schools. Vocational training can be best given in special schools established to meet the needs of certain localities. It will certainly be superfluous when it is forced on schools imparting general culture. But the curricula of the schools of general culture need overhauling. Our schooling cannot properly be divorced from vocational needs; and we must consider ways and means of imparting vocational bias, coupled with the general education of our boys and girls. Yet it is hard to define vocational bias. Shall a boy who learns woodwork in schools have a chance of using hand tools in a modern furniture factory? His practice in handwork is not likely to be of direct use in after life; it is valuable only as a part of all-round experience which makes balanced education. The vocational bias should mean for us as much understanding of principles as would ensure the ability and the readiness to apply them even though conditions and circumstances may change.

Home Work in Schools.

In the Section of Medical Sociology of the British Medical Association which met, in July last, at Oxford, Dr. William

Brockbank, Medical Officer of the Manchester Grammar School, opened a discussion on home work. He did not subscribe to the view that all home work was a useless and harmful tyranny. The vast majority of parents and the vast majority of boys working for public examinations were in favour of it and regarded it as a regrettable necessity; the members of the teaching profession were emphatic that it was a necessary part of education even though they had to spend many weary hours in correcting it. In doing home work, the boy was thrown on his own resources, and the work was, therefore, individual as contrasted with the work done during the day in collaboration with the teacher; and thus the boy found his limitations and might discover his potentialities. But Dr. Brockbank admitted that some masters were inclined to set too much home work; that some parents were oddly unreasonable; and that cases had cropped up when under the stress of examinations the boys had been studying for longer than was advisable or necessary and had thus injured their health. In his opinion the solution of the home work difficulty was moderation and common sense. The burden of the average boy should be eased and the studious boy should be trained to understand the perils and pitfalls of overwork. "Keep a careful watch on the individual boy who is suffering from the system, and, when he is spotted see that there is close collaboration between school and parent. See that the staff do not intentionally or accidentally expect too much of their boys, but do not let them abolish home-work. Let boys be taught the art of private study. Do not damp down the ardour that so many boys show for their work, and do not discourage the many boys who are desperately anxious to educate themselves to the best of their ability." These are very sound conclusions and deserve to be pondered over.

Interchange of Teachers in India.

Nowhere in the world, the temporary interchange of teachers among the different parts of the country can be so beneficial as in India, but nowhere in the world the educational administration is so wooden as to make such interchange practically impossible. Some time back the Inter-University Board collected information from the various universities about the teachers who were willing to work in universities or colleges other than their own if temporary exchanges could be arranged. But nothing came out of it. The teachers serving under one university know very little about the conditions of service and the educational atmosphere of other universities and they stagnate. The

temporary exchange of secondary teachers among the different provinces of India remains a dream unrealised and a hope unfulfilled. The U. P. Secondary Education Association is preparing a scheme of exchange of teachers among the Non-Government schools of the provinces of Agra and Oudh and deserves encouragement and support. Perhaps the scheme may lead to a solution of the problem of insecurity of tenure among secondary teachers. We shall watch the progress of the scheme with interest.

The 15th U. P. Secondary Education Conference.

This Conference will be held at Muttra on October 22—24 under the presidentship of Mr. D. P. Khattry. The U. P. Secondary Education Association is an association of teachers serving in non-Government English Schools and Intermediate Colleges of United Provinces. It has solid educational work to its credit, and its achievements and methods of work have been commended by Directors of Public Instruction and eminent publicists of the province. Its conferences have been presided over by educationists of repute like Dr. Narayan Prasad Asthana, Mr. P. Seshadri, Dr. Sir Shafaat Ahmad Khan, Prof. P. K. Telang, Bishop J. C. Chitamber and Dr. Tara Chand and it has been responsible for many educational reforms in the province. It has recently been perturbed a good deal by the Government proposals that most of the High Schools should be reduced to Middle Schools and that the Intermediate Colleges should have to give up their top class. This would mean giving notice to a large number of teachers working in these institutions. The Association cannot contemplate with equanimity the throwing out of employment of so many teachers of High Schools and Intermediate Colleges, and is resolved to oppose these proposals with all the forces that it can muster at Muttra. In these days of unemployment the U. P. Government would be ill-advised to push forward such proposals as may seriously dislocate the existing system of educational administration and may cause hardship and distress to a large number of teachers whose only fault is that they have qualified for their profession and have stuck to it with devotion.

Obituary.

India has lost an educationist of repute, and the teaching profession one of its ardent advocates, by the death of Dr. A. H. Mackenzie. Dr. Mackenzie came to India as the Principal of the Training College, Allahabad, in which capacity he infused a spirit of self-less service and efficient discharge of duty among his pupils whose number is legion. He next occupied the post of the Chief Inspector of Vernacular Schools where he showed such admirable qualities of sound administration and tact that he was soon appointed the Director of Public Instruction. No D. P. I. has commanded so much loyalty from the teaching and inspecting staff as Dr. Mackenzie. He made personal contacts with innumerable individuals and was responsible for numerous educational reforms. After his retirement from U. P. he accepted the Pro-Vice-Chancellorship of the Osmania University and was nominated to the Central Advisory Board of Education. He had recently been selected to succeed Sir George Anderson as the Educational Commissioner with the Government of India, which position he would have occupied now, had not the cruel hand of death cut short his life. Dr. Mackenzie was a brilliant educationist, an effective speaker and a sympathetic administrator. He was a sincere worker, a kind-hearted man and a loyal and generous friend. We could ill afford to lose him at this juncture.

The country has suffered another loss by the death of Dr. Gyanendra Nath Chakravarti. He attended the first Parliament of Religions at Chicago and was for a long time an Inspector of Schools in U. P. He was next appointed the Vice-Chancellor of the newly started university of Lucknow and after serving his term lived a retired life at Benares. Dr. Chakravarti was a scholar and had a very impressive personality. His Inspection notes were literary treats and his treatment of teachers courteous and sympathetic. He has died full of years and leaves a large number of friends and admirers to mourn his loss.

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MANAGING EDITOR:
D. P. KHATTRY



SEPTEMBER, 1936

ALL-INDIA FEDERATION OF
EDUCATIONAL ASSOCIATIONS

POST-BOX 52, CAWNPORE

PRICE ANNAS EIGHT

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The Editors will be glad to receive contributions on all matters educational and particularly invite for publication (a) authoritative articles on educational topics; (b) short articles dealing with educational research; (c) accounts of educational experiments; (d) articles containing statistics and their application to the solution of educational problems; (e) short notices of original works; (f) news of interest to educational workers.

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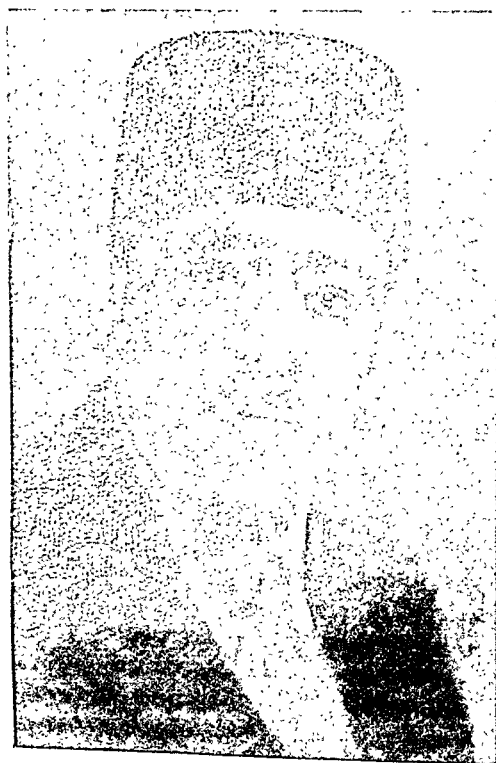
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SIR ROSS MASOOD, LL.D., D.LITT.

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AN IMPORTANT ASPECT OF NATIONAL EDUCATION

BY

SIR ROSS MASOOD, LL.D., D.Litt.

Of all the problems that confront the Indian educationist to-day, there is none which is more deserving of careful consideration and early solution than that of the position which the different languages spoken in our country are to occupy, when our present system of education is overhauled and reorganized to meet adequately that which will be demanded of it by the impending changes in our system of Government.

Rightly or wrongly, for good or for evil, we in India have placed our faith in a form of government which has been discarded not only by many countries in the West but also by those in the East which the world agrees to call progressive. It seems that democracy with which the West has played to satiety is now in a mangled condition to become our plaything. It is indeed a tragedy that like children nations too refuse to accept as correct the results of the experiments which they have not themselves tried. Whether this attitude of the human mind leads to ultimate good or not is a question which I shall leave to philosophers to determine: all that I know is that it leads to a great wastage of energy, which I consider a serious matter for such a country as ours, where much that is of basic importance in the life of our people has still either to be reorganized or created afresh.

Now if the democratic form of Government, as interpreted by the West and selected by us, is to have a fair trial in our country, there are certain rules by which we must abide and certain conditions which we must bring into existence without any further delay. Of these the most important, and the one

Note.—A speech delivered during the Bengal Education Week.

with which I shall be mainly concerned in this lecture, is the war which has to be waged incessantly against illiteracy and, therefore, against ignorance if real disaster is to be averted. Democracy has an unpleasant way of degenerating into anarchy if attempts are made to establish it in a country where the majority of the inhabitants happen to be illiterate; and this seems to me to be the most immediate danger with which we in our country are to-day threatened.

In our fight against illiteracy and ignorance it is the languages spoken in our country that will prove the most potent weapons, and if we continue to neglect them in the future as we have done in the past, we shall ourselves be guilty of inviting disaster. The injury that can be inflicted on a country by an ignorant electorate can be as serious and as lasting as any that can result even from a prolonged war. Thus the problem before us is how to bring in the shortest time possible a correct knowledge of the essentials of collective life and of the requirements of modern citizenship within the reach of our countrymen of whom the vast majority are at present unfortunately illiterate; or in other words, how to solve in the quickest manner possible the problem of mass education in our country.

I am one of those who believe that if education is to be based on reality, it has to be organically connected with the life of the people whom it is sought to educate. This has not been the case with the system of education which we have been following since the middle of the nineteenth century. The result in the main has been disastrous. Not only has it caused a radical disruption in our social life, but it has also set an undeservedly high value on the mechanical faculty of imitation and shaken our faith in most of that which had come down to us from our ancestors as representing our old culture. It has tended to make us despise our own heritage without making us the real inheritors of any other heritage; it has disconnected us from our past traditions and failed to connect us organically with any other body of traditions; and finally, it has starved our soul and created in us that inferiority complex which not only saps the virility of a people but also makes it difficult for others to get on with them.

I maintain that most of these defects would have been avoided if we had determined to use our own languages as the media of higher education. But, alas! this we did not do. Our faith in ourselves was so much shaken that we did not believe that anything that had originated in our own country was deserving either of preservation or improvement. With time this contempt for our own languages became so intensified that till not so very

long ago there were many amongst our countrymen who actually took pride in the fact that they could not speak their own mother tongue correctly: some went even to the extent of aping not only the Englishman's gestures but also his wrong pronunciation of Indian words! This offers to my mind the best example of that expressive but much abused term—slave mentality—which Mahatma Gandhi has added to the already fervid vocabulary of our politicians.

To remove these defects from our present system of education, it is necessary for us to rationalize and therefore nationalize it. What constitutes national education is too complicated a topic for me to discuss here, but one aspect of it can be defined, and that too plagiaristically, as the education of the people of a country, by the people of that country, in the language of that country.

But before we can proceed with the reconstruction of our educational system it is necessary for us to face certain facts however unpalatable they be to our politicians. The first of these is that the inhabitants of our vast country neither constitute one nation nor offer any hope of becoming one within any measurable distance of time. The second is that though the present clash of different and often contradictory cultures and religions will with time become less vocal, yet it will always remain a reality in the group life of our people. The third fact we have to face is that no attempt to superimpose either one language or one religion on our people has any chance of success.

We have thus to visualize the India of the future as a country consisting of different nations or cultural groups, each represented by a language of its own. This leads me to hazard the statement that our educational problem is national only in appearance, for it is in reality international, since it deals with the educational evolution of different cultural groups that inhabit our land.

Those that planned our present system of education seem to have been unconsciously guilty of practising in our country that which they would not have been allowed even to preach in their own. They paid no heed to the axiom that it is one's mother tongue that one understands most easily, and that consequently, if knowledge has to be conveyed rapidly to any one, it is his mother tongue that should always be employed for the purpose. It is pathetic, though nevertheless true, that ours is the only country in the world where it is still found necessary to draw the attention even of those connected with educational work to the truth of this axiom. The unreality that envelops our educational effort and its failure to achieve results commensurate with the

energy expended on it are entirely due to the unnatural attempt we have made in the past and still continue to make to use a foreign language as the sole medium of higher education.

One of the unhealthy results of this has been that it has given to our already caste-ridden country yet another caste consisting of those that find themselves unable to express their thoughts adequately in any language of their own country, and are consequently unable to pass on what they have learnt to the vast masses of their countrymen, who, in spite of coming into close contact with them, remain as ignorant as before.

In this connection I cannot help narrating to you an episode from my own life, which brought me great humiliation at the time. Many years ago, my old mother, who would be considered uneducated only in our country and that too only by the products of our educational system, happened to be living with me in a place where bubonic plague had broken out. At my request, as a precautionary measure, she had herself inoculated against it. When the fever and pain which sometimes follow such inoculation had left her, she asked me to explain to her the principle that underlay all inoculation. I thought over the answer for a few minutes and then had to confess to her that as she did not understand either French or English and I did not know enough of my mother tongue for the purpose, I could not explain the theory of it to her. Thereupon my mother looked me straight in the face and said: "My son, of what use will your education be to your country if it does not enable you to remove the ignorance even of her of whose very bone and flesh you are made?" I leave you all to guess what my feelings must have been at that moment.

But this is not the only harm which our neglect to develop our own languages has done to us. It has also tended to disrupt the cultural unity of our home life in many other ways. Our women, for reasons social and economic, have not been able to afford the extra time necessary for learning a foreign language before proceeding with their education proper. We have thus brought ourselves face to face with the strange paradox that however well our women may know their own mother tongue and however wide-awake they may be intellectually, we in our heart of hearts are not prepared to consider them educated. The ignorance of the English language has in our mind become synonymous with the absence of education! I do not know of any other country in the world where one would be called educated who knew a foreign language but was unable to express himself adequately in his own mother tongue. It is self-evident that a

home where the cultural outlook of the wife is diametrically opposed to that of the husband can never become the abode of happiness that it should be.

Moreover I find that the absence of discipline which has become such an unpleasant characteristic of life in our country is also due to a large extent to the presence of this cultural disharmony in our homes. The young boy who goes to school and learns practically everything through the medium of the English language does not take long to come to the conclusion that simply because he does not know the English language—to his mind the sole medium of sound education—his mother must be an ignorant woman. He begins to treat her opinions and ideas with that contempt which is the negation of all home discipline. This is not the case in other countries where the difference in the education of men and women is only one of extent and not of quality. For example, a Japanese mother cannot only follow the progress her son makes even in the collegiate stage of his education but is also prepared to discuss intelligently with him that which he has been taught, and, frequently, even to explain to him what he had found difficult to understand in the class room. Unlike the vast majority of our women she has been able to preserve her بزرگی (seniority of status) even in matters educational and thereby to strengthen still further that discipline of the home which gives an added stability to nations.

This duality of culture or rather the clash of cultures that goes on sometimes silently but nevertheless constantly in our lives shows itself also in other ways. One has only to examine our homes to realize fully the confusion that exists in our inner life. Our homes to-day are neither Indian nor English in character, but generally represent an ugly mixture of the worst features of both. The desire to imitate Englishmen in everything, nurtured by the unnatural importance that we have assigned in our educational system to the ability to speak their language, manifests itself tragically in our possession of just one room in our houses which we fondly imagine we have furnished in what only we consider to be the correct English style. With the rest of the house we do not seem to have any concern, and certainly not with such portions of it as the kitchen, etc., which in a real English home would be treated as at least of equal importance. We seem to regard appearance as of higher value than reality, and to treat life as a perpetual masquerade wherein we vie with each other in trying to play feebly the part of Englishmen.

The same air of unreality surrounds the work which is carried on in our educational institutions. An outsider visiting

them would find our method of instruction stupid in the extreme. He would, for instance, see the absurd sight of a group of Indian boys being taught the history of their own country in a language which happens to be neither their mother tongue nor that of their teacher. Let us for a moment put ourselves in the position of such a visitor, and then ask candidly whether absurdity can go any further. Education acquired under such artificial circumstances can never become the living force in life that it should be. I dread to think where Japan would have been to-day if she had been as unpatriotic and unnatural in her treatment of her language as we have been, or England if she had continued to allow Latin to be the sole medium of education.

But in spite of the pessimistic picture which I have so far drawn of our educational condition, a change in the right direction has slowly begun to make itself dimly visible. We can catch glimpses of it even in such prosaic and matter-of-fact publications as "The Quinquennial Review of the Progress of Education in India," in a recent issue of which my heart rejoiced to read the following paragraph:—

"There can be little doubt that most of the disappointing results in secondary and collegiate education can be traced to the use of a foreign medium of instruction. It is a sad effect of the present system of education in these stages that, though a certain number of gifted students speak and write English with remarkable fluency, the majority are losing the power to think and to express themselves in any language."

The inclusion of such a paragraph in an official document seems to me to be a happy augury for the future. We can only hope that it is the harbinger of that change in the official outlook on education which has now long been overdue.

If the premise enunciated by me earlier in this lecture, namely, that we Indians constitute in reality a collection of different cultural and linguistic groups, is accepted as correct, as also the statement that we can never make ours a unilingual country, then it follows that the sooner we turn our attention to the development of our indigenous languages the better will it be for the progress of our country as a whole.

It will have been noted that throughout this lecture I have been using the term languages, which term for the purpose I have in mind does not include dialects or inadequately developed *patois* that have no cultural basis. Briefly stated, my scheme

for the educational reconstruction of India is that we should divide our country into linguistic areas and give to each such area a university wherein the language of that area should be the medium of instruction. This is the only way in which we can make our universities real sources of enlightenment for our people, and at the same time connect them organically with the life that goes on around them. Their present organization has made them so remote from the actualities of life of even their surroundings, that, were they to disappear, they would not be missed by the vast majority of those people in whose midst they are situated. Politically we have accepted the principle that our country is to be a federation of States. Let us be consistent with ourselves and follow the same principle educationally.

It can be objected that the present administrative divisions of our country do not coincide with the linguistic divisions that I have proposed, and that consequently my scheme would result in a multiplication of universities. This objection I do not consider as of much importance, for I see no harm in our endowing such large areas as the Bombay and the Madras Presidencies with more universities than they possess at present. There is even today an administrative area—the United Provinces—where there are no less than five universities. Another objection that I have frequently heard raised is that by strengthening the different languages of India we would be giving an added force to the separatist tendencies of our country. To this my reply is that, as I have already stated, I do not visualize India as a country which can ever become nationally as homogeneous as, let us say, England. Political unity of outlook can only come into existence by correct education which alone enables a people to understand what the common good of their country demands. Moreover, unity of language does not necessarily bring into existence internal unity, or, *vice versa*, a multiplicity of languages internal disharmony. We all know that in spite of the fact that the negroes of America not only speak the language of the white people inhabiting that country but have also adopted their mode of life and even their religion, they continue to receive at the hands of Americans a treatment which I consider a disgrace for any country that claims to be called civilized. On the other hand, we see that in Switzerland, where in spite of its small size no less than three languages are spoken, there is more unity of national outlook than in many countries that are unilingual.

I would aim at creating unity by introducing a system of education which though not stereotyped, would nevertheless be from the point of view of its contents more or less unified. Nor

is it my intention that we should give up the study of the English language which I firmly believe has come to stay in our country for good, and which will continue to be not only our main channel of contact with the western world, but also one of the *lingua francas* of our country. I am only opposed to its use as the sole medium of instruction, for I do not believe that it can ever be made the language of the masses, and as such be of any help to us in fighting mass illiteracy.

All properly organized systems of education aim at facilitating the transmission of knowledge from the teacher to the taught. Ours has made this process unnecessarily cumbersome by using a foreign language for the purpose. This defect must be removed.

Such universities as those that I have ventured to propose will have their roots deep down in the cultural soil of our own land, and whatever emanates from them will reach even the masses unhindered since it will be transmitted to them in a language which they will understand.

I have sometimes also heard it said that Indian languages can never become correct conveyers of modern thought. Need I prove the hollowness of this objection to those that have living amongst them a Rabindra Nath Tagore? Moreover this is exactly what was being said in different countries in Europe when the first feeble attempts began to be made to displace Latin from the unnatural position that had been allotted to it also in their systems of education. Remember that Europe too has passed through the same stage of educational chaos through which we are to-day passing and that there too for a long time people who desired to be called educated felt ashamed of using their mother tongue for serious purposes.

To me it is obvious that what Japan has been able to do in spite of being burdened with an ideographic language, our country can do with greater ease with languages which are both in construction and origin nearer to European languages than is the case with the Japanese language. It is true that a great deal of constructive and hard work has to be done, but then nature has ordained that nothing that is worth having in this world should be obtained without hard work. We have to pay by making an extra effort for having allowed ourselves to lag behind in the educational race, and of this we should not complain.

If India is to recapture her soul, she can only do so by developing that which is her own and not by attempting to treat as her own that which is not hers. Remember that to neglect what is one's own is frequently to court the neglect of others.

Intellectually, our country to-day presents a pitiful sight. She is like a sick woman who refusing to use the legs which God has given her is compelled to hobble along painfully and that too only with the help of crutches manufactured in a country six thousand miles away! So long as we allow the world to see this sight, we can regain neither that self-reliance nor that self-respect which should be ours as the inhabitants of a country which has always been regarded even by others as the home of civilization.

Diversity is and will always be the main characteristic of life in our country. We have not to evolve only one culture but in consonance with our nature a variety of cultures. Let the present be again organically connected with the past and we shall make the world all the richer by giving to her that which we feel is in us but to which we cannot at present give a visible form.

I know that to most of my countrymen my views will appear heterodox, but I also have the satisfaction of knowing that it frequently happens that the heterodoxy of to-day becomes the orthodoxy of to-morrow. But the oriental in me is so strong that I cannot resist the temptation of concluding this paper with a quatrain of which Sir Mohammad Iqbal—the greatest poet to-day of the Mussalmans—is the author:—

دلا! نادانی پروانہ تاجے
نگیری شیوہ مردانہ تاجے

یکے خودراز سوز خویشتن سوز
طواف آتش بیگانہ تاجے

O! Heart mine, how long wilt thou continue
to imitate the folly of the moth?

How long will it be before thou learnest to
tread the path of manliness?

Learn first to burn thyself in a fire which is
thy own;

Of what use is it for thee to flutter in adoration
round a fire which is not thine?

MODERN EDUCATION AND ANCIENT INDIAN CULTURE

BY

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The lady graduates symbolise, in ancient Indian culture, the *holy and divine* mother and to them our sweet reverence is due in a full measure. It should be remembered by all the lady graduates that the ideal of Indian womanhood, as typified by Maitreyī in the Brhadāranyaka, by Sītā in the Rāmāyana, by Sukanyā in the Devī-Bhāgavata, by Sāvitrī, Damayantī and Pāncālī in the Mahābhārata, can easily be maintained to be always unsurpassable in its purity and loftiness. The first and greatest exhortation which the teacher in the Taittirīyōpaniṣad addresses to a student on the termination of his pupilage in the teacher's residential college (gurukul) is, as most of us know, "Venerate thy mother as thy God"—"*Mātrdēvō bhava.*" It is the high privilege and the great responsibility of the lady graduates to cherish untarnished and realise in their life all the noble implications of the Indian ideal of cultured womanhood, as known in the past history of Indian Culture. Their responsibility in this direction is very great; for, any approximation to Rāmachandra or Nala or Yāgnavalkya would be comparatively less difficult than an approximation to Sītā or Damayantī or Maitreyī. Their education has placed them in a position in which they can claim economic independence and compete with men in all occupations and in the pursuit of the recreations, diversions and forms of social service, which the modern world has learnt to value. They have every right to rebel against the double standard of morals for the two sexes, which some blind customs have allowed to operate in India and other countries. They are quite competent to undertake the duty of emancipating their uneducated sisters by educating them and lifting them up to a higher level. In doing all this, they have to remember that the task of promoting equality between men and women is exceedingly delicate and complicated in its nature. Equality may, with great advantage to society, be secured by the enlargement of the freedom of women in respect of all good things and by the curtailment of the freedom

of men in respect of all bad things. 'In respect of all good things strictly,' in the former case, and 'in respect of all bad things strictly,' in the latter case—these two significant reservations should never be forgotten. They have also to remember that, whatever their public status may be as educated women the genius of India's ancient civilization and culture requires that they should secure and maintain in an efficient manner, the dominant place which God in His Great Wisdom has reserved for them, in the pivotal institution of Indian civilization—*viz.*, *family*; and this important institution depends entirely for its unsullied cohesiveness and continuity upon the sacred institution called *marriage*. It would be a terrific disaster for Indian civilization and culture, if the new generation of educated men and women should be found incapable of appreciating the beautiful ideals of married and family life, of the household (*grha*) and the Queen of the household (*grhini*), so vividly depicted in India's ancient literature. The educated women who have been admitted to the Degrees of University must necessarily play a very important part in the direction of women's education in India. I would request them all to remember that the education of Indian women—of Hindu women—should not be inextricably linked up with the European ideal and should be designed so as to develop them into a Maitreyī or Sītā or Damayantī or Sāvitrī or Sukanyā, so as to turn them into magnanimous wives, noble mothers and wisely alert sisters. To this end, the necessary foundation in the pre-collegiate stages should be laid with wise discrimination and great caution. We may have an excellent idea of what a sound educational scheme for women ought to be in the pre-collegiate stages, by pondering over the precious suggestions which Dr. Besant made in one of her speeches many years ago. That great and wise friend of India said in 1901—"A thorough and literary knowledge of the Vernacular—Hindi, Bengalee, Gujerati, Tamil, Telugu, whatever it may be—including written composition; a knowledge of Sanskrit sufficient to enable a woman to read with pleasure and profit the magnificent literature of the past, its poems, its dramas, its stories; a knowledge of English, because under present conditions such a knowledge is necessary for sympathy with English educated husband and sons, because it opens the way to a world of thought that may be studied with advantage and enjoyment and because it brings the women into touch with a most potent factor in the modern civilization of India; a knowledge of Hygiene, of the laws which make for health in the house, in personal habits and in domestic arrangements; a knowledge of the elementary physiology and household medicine

sufficient to make the mother an intelligent nurse, and in slight ailments physician for her children; a knowledge of some art, music, above all, painting, needle-work, plain and artistic, that she may make the home bright with pure attraction and make it a centre of happy and harmless amusement. Such an education would do nothing to injure the sweet grace of the Indian woman, while it would enlarge her mind, increase her influence and strengthen her character. Needless to add that this education must be accompanied by religious instruction which will purify the heart, enlighten the understanding, stimulate devotional feelings, and satisfy the spirit as it seeks to realise its divinity. Never will the Hindu woman lose her spirituality; but she needs to add to her faith, knowledge, so that she may be a sage as well as a saint, and bring to the service of her great ancestral religion woman's wisdom as well as woman's devotion. So shall she avert from husband and sons the evils of scepticism and apostasy. Hinduism has kept her pure; it must again as in the old days keep her wise." If Hinduism has kept the Indian womanhood pure and if it must again, as in the old days, keep it wise, as Dr. Besant said, and wisely effective, let the Indian womanhood draw its inspiration from the *Ardhanārīsvara* image, which symbolises, in a beautiful and significant way, the great synthesis which the Hindu society should always aim at—the synthesis between woman and man, between art and science, between self-effacement and self-realization, between renunciation and possession, between beauty and sublimity, between sweet suggestion and telling expression, between speech and thought, between charm and response, between motherhood and fatherhood, and above all, between the *dharma* of a family life and active and skilled service in the wide world of diverse pursuits and purposes. May the great Hindu symbolism of *Ardhanārīsvara*, synthesising *Sivā* and *Siva*, protect the glorious purity of Indian womanhood!

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India's past is great; and her present as well as future should be also great, if it could be wisely correlated with her past. If, as the worthy Dean Inge (a former Dean of St. Paul's) observed, less than three years ago, the only promise of a better future for his country was to be looked for from those to whom her past was dear, it could be said, with greater appropriateness, to the graduates of an Indian University, that the only promise of a better future for India is to be looked for from those to whom her past is dear. A true Indian has his life certainly in the present, but he finds the roots of his life in the past, and has his eyes turned

towards the future. No sensible person would ask one to think that the past is all good and the present is all bad. Many of us may be thinking at this moment of Kālidāsa's wise remark that mere antiquity is not a guarantee of goodness and mere novelty is not a mark of badness and that wise men discriminate what is good from what is bad by a careful consideration of intrinsic worth.

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The Indian expression for *progress* is '*Yogaksema*.' This is a compendious expression signifying all the essential elements making up the meaning of the term *progress*. *Yoga* consists in advancing further and getting what has not already been got; and *ksema* consists in conserving all the good things already obtained. Ancient Indian culture is equally solicitous about *Yoga* and *ksema*. Any attempt to write on a clean slate and to demolish the past completely and build anew is against the nature of India's genius and such attempts will prove to be dismal failures in India. We cannot hope to have an intelligent appreciation of India's past, without acquiring adequate ability to understand and appreciate the Indian literature, which enshrines all the good achievements of ancient India in the spiritual and secular spheres of life. That the spirit of ancient Indian culture is primarily embodied in Sanskrit literature, that the distinctive phases of South Indian culture are embodied in the great literatures in Tamil, Telugu, Kannada and Malayālam, and that these distinctive phases of South Indian culture influenced and were profoundly influenced in very ancient times by, Sanskrit culture and can never be completely disentangled and dissociated from Sanskrit elements—are propositions which no level-headed person can think of challenging. It would thus be obvious that every graduate of our University should acquire, either in the stage of University education or beyond that stage, an adequate knowledge of Sanskrit and at least one of the South Indian languages—so much knowledge as would enable him to appreciate ancient literature of Universal appeal, like the *Upanisads*, the *Gītā*, the *Rāmāyaṇa*, the *Mahābharata* and the *Sakuntala* in Sanskrit, and as for example the immortal *Kural* and *Kambaramayana* in Tamil. Towards this end, the curricula of studies in schools and colleges need not be overburdened, by compelling each student to study English, Sanskrit and a vernacular in his class-room. This object can be best achieved only through schemes of extra-curricular studies, under which Sanskrit undergraduates and Sanskrit graduates would easily persuade themselves to study and enjoy the beauties of a few Tamil classics or

classics in some other South Indian language, and similarly under-graduates and graduates in any of the South Indian languages would easily persuade themselves to study and enjoy a few Sanskrit classics. Whatever might have been the nature of the cleavages that existed in ancient India among the diverse creeds and dogmas, there were absolutely no cultural cleavages or inter-cultural and inter-linguistic jealousies, such as we witness sometimes in these days, whenever any good measures are being discussed for promoting the study of ancient Indian languages and literatures. We should remember that great makers of South Indian literatures in the past were either themselves Sanskrit scholars or scholars who were able to appreciate readily the good elements of Sanskrit culture, and that great representatives of Sanskrit culture in the past never hesitated to seek and secure the valuable help of the vernaculars in their great work of expounding and propagating great truths. It is only by strenuous work in these directions that the problems involved in the employment of the mother-tongue as the chief educational medium can be solved and that the spirit of ancient Indian culture can be re-captured and effectively brought to bear on the present and future schemes of Indian education.

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We should think mainly *in time* and not so much *in space*. The ascendancy of space-thinking is partly due to a deep-rooted perversity of mind which attaches greater importance to the eye than to any other sense. "Space-thinking," as a modern writer puts it, "is insufficient whenever the meaning of human life is in question, because human life, though it displays itself as a spectacle in space, goes on as a conscious experience in time." Time-thinking is a natural mode of thought. It may be called 'the historical mind,' and all sound history should deal not only with the past, but with the present as growing into the future. Time-thinking is bound up essentially with the idea of *lastingness*. Ancient Indian culture has invariably stressed *lastingness* (*nityatva*) as the essence of the highest conception of reality (*satyatva*) and has thus revealed, in a very telling manner, the significance and value of time-thinking. Some ardent and well-meaning disciples of Karl Marx, who are enthusiastic space-thinkers, may place before us—note the term—a social *scheme*, or *system*, in which all men and forces are *placed*—note the term again—in right relationships to one another. As Indians, we have inherited a great tradition of time-thinking from our past and we should, as time-thinkers, ask—how long will these men

and forces stay where we have placed them, how long will that relationship last?

We should ask whether the socialistic space-thinkers are not placing before us "a picture, perhaps a Utopian picture, of human beings caught by the eye at a very happy moment, photographed, so to speak, in the state of social behaviour the space-thinker considers most desirable," say, in a place like the Soviet Russia. The Marxian propaganda may be loud and confident and a good many of our young men may come to believe that "they see a red dawn rising, full of promise, in Russia, where all the old values and traditions, with every atom of religious faith, are being torn up by the roots." So long as communism and socialism derive their sap from the heritage of Karl Marx of which dogmatic materialism and atheism form part; so long as they are based on class-hatred and dominated by anti-godism, so long as they generate and foster a novel disease of a type of neo-orthodoxy, which seeks to establish a new form of superstition manifesting itself in willingness "to entrust the navigation to people who believe in wrecks as a principle or make a business of piracy"; and so long as the new civilisation of communism and socialism refuses to believe in the past or the future of the soul and thinks exclusively in a spatial and quantitative groove:—we shall be safe as the inheritors of a great time-thinking past, only if we stand off from these new experiments. And as inheritors of the all-embracing, all-unifying *advaita* of the Upanisads, as expounded by Sankara, you should strengthen yourselves by the hope, as H. G. Wells puts it, that, out of all the trouble and tragedy of this present time, there will soon emerge in India an *advaitic* revival, "of a simplicity and scope to draw together men of alien races and now discrete traditions into one common and sustained way of living for the world's service."; and by the hope that "religious emotion may presently blow through Indian life again like a great wind bursting the doors and flinging open the shutters of the individual life."

Slightly modifying the splendid words of Edmund Burke, it may be said that a University, as well as a nation, "is a partnership and trusteeship in all science and all art and in every virtue and perfection; and as the ends of such a partnership and trusteeship cannot be obtained in many generations, it becomes a partnership and trusteeship not only between those who are living, but between those who are living, those who are dead, and those who are to be born." We have a legitimate claim for the privileges of a *partnership* in University life and national life,

if we fulfil the three main conditions of constructive citizenship—that we should see that every variety of one valuable occupation is dominated by the fiduciary spirit; that we should aim at the development of skill in everything that we do; and that we should endeavour to create and perfect certain scientific methods “for harmonizing conflicting claims and for turning human relations, which would otherwise be mutually destructive, into relation of mutual helpfulness.”

Our aim in everything that we do should be the perfection of our skill. Skill is an essential ingredient of constructive citizenship. We should not fall under the malign spell of the concept ‘happiness,’ for ‘happiness’ is “the one object of human endeavour in regard to which men in general are the worst judges and the readiest to be made fools of.” We must choose a vocation that challenges our skill and puts us on our mettle. “Beware of soft jobs and remember the fall of Lucifer.” The doctrine of ‘the greatest happiness of the greatest number’ is a pernicious doctrine. No doubt, all science, all knowledge, fulfils itself in its applications. In a book discussing the applications of science, it is solemnly stated that science is “the mighty instrument which enables man to conquer Nature and develop her resources for his own advantage.” This view is as pernicious in its effect as the doctrine of “the greatest happiness of the greatest number.” So long as this view prevails among those who have studied “science” and have acquired scientific knowledge, it would be impossible to reconcile science with religion or morality or humanities. Replace the doctrine of “the greatest happiness of the greatest number” by the wholesome doctrine of “the greatest skill of the greatest number.” Remember that Science is given to man not to distil the universe into individual advantage, not to be a mere short-cut to our ends, not to be a mere labour-saving device, not to be merely “a means of satisfying the desire for happiness with the minimum of effort and personal skill, till man’s vocation as a worker becomes a mere affair of pressing buttons and turning switches.” In the earlier stages of its history, science tended to destroy art; and if it were to stop with that or persist in that and should it fail to be a powerful ally to man in developing himself by the skilled performance of what he knows and in securing the greatest skill of the greatest number; and if it should help man only in increasing his periods of ‘untrammelled leisure’ without sufficient skill to vitalize his leisure; if that be all, then I for one will say:—“Let the hour stand accursed when science was born into this world.” It is indeed highly comforting to think that the God-

appointed destiny of science is to become "the founder and the diffuser of art, completing itself in the practised skill of men." Remember that ancient Indian culture brought about, in this way, the reconciliation of science with religion, through the elevation of *skill* to the rank of one of the highest aims of life. When the Lord calls upon Arjuna to do, *whatsoever he does, as an offering to Him* and says:—

"yat karosi yadasnāsi yajjuhosi dadāsi yat |

yat tapasyasi kaunteya tat kurusva madarpanam ||"

He requires Arjuna really to secure the highest degree of perfection in all that he does; for, no act would be worthy of being offered to God, which is not done with the highest degree of perfection; and worm-eaten flowers are unfit to be offered to God. It is recorded that a Mohammedan artificer in India, called Hussein Ali, more than a thousand years ago, made a remarkably beautiful astrolabe, an instrument of great ingenuity used in pre-Copernican times for measuring the altitude of the sun and the stars; and in this astrolabe, which happens to be preserved in a collection of ancient instruments, round the edge of the fine brass-work, there is an Arabic inscription which may be rendered as follows:—"This astrolabe is the work of Hussein Ali, mechanic and mathematician and servant of the Most High God. May His name be exalted throughout the Universe." The words "Mechanic and Mathematician" point to the disciplined skill on which the work reposes; and "Servant of the Highest God" to the disinterestedness and perfection with which the work is executed. If all the activities of our educated ladies and gentlemen should be inspired by the ideal of disinterested and disciplined skill suggested in the teaching of the Gītā—"Yogah karmasu kausalam"—"Yoga is skill in all your doings" and in the Arabic inscription of "Hussein Ali," India's civilization, in the future, will be in noble consonance with India's glorious past.

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A good citizen's vocation is not to be merely analysing his neighbour's ills. The inevitable consequence of the application of the pathological method in the sphere of public and social service would be a wasteful strife between those, on the one hand, who wish to play the part of social doctors and those, on the other, who will stoutly resist rather than allow themselves to be

treated as social patients by those whose credentials are, at best, problematic. Much of the disharmony, which arises in these days in Indian society between different groups of India's daughters and sons, in most of the programmes put forward by well-meaning enthusiasts who wish to reform the Indian society in various ways, results from an avowed advocacy of the method of social pathology, the method of diagnosis and cure. In the sphere of politics, more than in the sphere of social reform, the pathological method is unsuitable. The method of diagnosis and cure is most unsuitable, particularly, when India is put on the road to self-government. To adopt the pathological attitude in social service or social reform or in the body politic would logically reduce the democratic principle of self-government to the absurd form of "Government of social patients, by the social patients, for the social patients." The correct method conducive to constructive citizenship would be to note the healthy centres of the society and vitalize it by energizing those centres. That India's civilization is not rotten to the core and that it has still many healthy centres of life may be easily understood from the fact that it has withstood and outlived many an upheaval and many a vicissitude.

Nothing considerable can be achieved by us unless all our work comes to be informed by faith and courage. In the first place, we must have faith in the immense resourcefulness of man *as man* and we must have the courage to pull us up to one full stature as *man*. We must remember the great Upanisadic thought which we have inherited from the past—"Purusāṇna param kimcit"—"There is nothing higher than the *spirit of man*"; and this has been rendered in Sankara's magnificent exposition of *advaita*, practically into "*Manusyāṇna param kimcit*." You must believe it, as a modern poet puts it, that "the mind (of man) hath many powers beyond name deep-wombed within it and can shoot strange vigours." You must have the courage to realise that life in society means life in the high tensions created in society by the operations of opposite forces—love and hate, pleasure and pain. Even the lowest form of life is pang-born and pang-sustained. "All the great ideals of humanity are pang-born"; and "they are the answers which the heroic spirit of man has given to the challenge of suffering and frustration, to the challenge of pain in one or other of its innumerable forms." Moral valour is a high virtue and it is inseparably bound up with social valour. "The day of crisis is the birth-day of our virtues." The hours of suffering are the hours when God incarnates Himself. We can never forget the prayer which

Kuntī, the mother of the Pāṇḍavas, chose to address to her God—
Srī Kṛṣṇa :—

“ *vipadassantu nah sasvat tatra tatra jagadguro |
bhavato darsanam yat syādapunarbhavadarsanam ||*”

“ May we have troubles and risks always and everywhere; for, then, we may see Thee, Master of the world, revealed to us in Your saving grace.” Kant has laid great stress on the “anti-social sociability of mankind.” Human society creates facilities for co-operation and in doing so, creates also occasions for mutual obstruction. This need not be taken to imply individual malice. A man who lives in society and moves on is “like a motor-car in a crowded centre and cannot help getting in his neighbour’s way.” If this simple fact be understood, a healthy social tension and social life could be easily ensured by harmoniously maintaining the polarity between the *anti-sociality* and *sociability* of mankind; and the social tension that arises from this polarity in human nature will call forth a highly constructive type of social valour and social courage. The worst enemy of social valour and social courage is the lower and vulgar kind of prudence, which induces one to run away from risks, to aim at unmixed pleasure, to be a safe man loving only safe ways—safe from all kinds of pain and to be deeply interred in safety, never to be alive to the ennobling virtues of suffering. Ponder over the thrilling words of a modern poet, with reference to such inferior and vulgar kind of prudence; and these words are put into the Divine stranger’s mouth by Lascelles Abercrombie and addressed to Saint Thomas when he is about to be victimised by the lower kind of prudence :—

“ Now, Thomas, know thy sin. It was not fear;
Easily may a man crouch down for fear,
And yet rise up on firmer knees, and face
The hailing storm of the world with graver courage,
But prudence, prudence is the deadly sin,
And one that groweth deep into a life,
With hardening roots that clutch about the breast.
For this refuseth faith in the unknown powers
Within man’s nature; shrewdly bringeth all
Their inspiration of strange eagerness
To a judgment bought by safe experience;
Narrows desire into the scope of thought.”

Here, I would point out the higher significance of *kāma*, which is included in the old 'scheme of ends of human endeavours' (*purusārthas*) handed down to us by our seers as part of our cultural heritage. The word *kāma* is usually understood in the sense of the "pleasures arising from the satisfaction of our desires" and this way of understanding it is not wrong. There is, however, a higher significance in the inclusion of *kāma* in our scheme of *purusārthas*; and we can appreciate it fully, only when we take the word in its etymological sense of *desire* and understand that lofty desires inspire all noble deeds. Again, ponder over what the Divine stranger says to St. Thomas:—

"It is written in the heart of man
 Thou shalt no larger be than thy desire.
 Thou must not therefore stoop thy spirit's sight
 To pore only within the candle-gleam
 Of conscious wit and reasonable brain;
 But search into the sacred darkness lying
 Outside thy knowledge of thyself, the vast
 Measureless fate, full of the power of stars,
 The outer noiseless heavens of thy soul.

* * * *

Send desire often forth to scan
 The immense night which is thy greater soul;
 Knowing the possible, see thou try beyond it
 Into impossible things, unlikely ends;
 And thou shalt find thy knowledgeable desire
 Grow large as all the regions of thy soul,
 Whose firmament doth cover the whole of Being,
 And of created purpose reach the ends."

EDUCATING YOUTH FOR THE NEW AGE

BY

A. D. MUELLER,

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I

It has been said that today more change takes place in the materials of education in a year than took place during the whole life-time of an American pioneer. Consequently, if our schools are not to fall hopelessly behind the march of events, and if they are to maintain their position as institutions for social progress, as training grounds for democratic living, and as the foremost agencies for civilization, they must be alert to the needs of the times and must make such adjustments, revisions, and additions to their curricula, methods, personnel requirements, organization, and the like, as are necessary to keep them always in position to render efficient service in the interest of the general welfare and happiness of the people.

This implies rendering such service as will prepare each individual to meet, to the best of his ability, the social and economic problems of democratic citizenship. It means developing in him those knowledges, skills, ideals and attitudes that will make him a good citizen, conscious of his rights, duties and responsibilities as such.

This is a big order for our schools to fill. While the better high schools have been rendering efficient service and have managed to keep fairly well abreast of changing conditions, too many others have been unable or unwilling to catch up or to keep up with the march of events. They are suffering from a severe case of *social lag*. Many continue to operate on a narrow curriculum administered under an out-moded philosophy of education. The result is that subjects become ends in themselves, to be studied, recited on, marked, passed or failed. Often the real purpose of the subject studied remains perilously obscure or entirely unknown to the student, with the result that he assumes a "task-to-be-performed" attitude toward it, rather than one of intelligent, purposeful understanding.

II

Recent studies show that the typical state curriculum for high schools consists of English, science, mathematics, history, and foreign language. Commercial and business subjects, industrial arts, fine arts, physical education, health education, and leisure-time education are conspicuous by their meagre representation or by their entire absence.

The highly academic nature of the typical high school curriculum in one state, for example, is shown by the fact that 87.5 per cent of the total student time is spent on English, mathematics, science, history, and foreign languages. Significant, too, is the fact that as the size of the school decreases, the percentage of student time devoted to academic subjects increases. For example, in schools of eight or more teachers this percentage is 85.7; in schools of four to seven teachers it is 87.7; and in schools of one to three teachers it is 91.5 per cent. These percentages substantiate the well-known fact that the small high school cannot give the broad curricular offerings that the functions of the modern high school demand.

Furthermore, instruction in the typical high school still takes its cue from the "subject-matter to be learned" rather than from the "life to be lived" philosophy of education. This inevitably results in a canned or storage variety of education which may or may not have future use. The difficulty here lies in getting it successfully and permanently placed. The nature of youth and the psychology of learning are eternally opposed to this brand of education.

In both the content of its curriculum and in its methods of instruction the average high school has kept itself successfully detached from the vital and challenging problems of life. Much of the criticism of education is due to the failure of the schools to keep pace with modern social and economic needs. The severest critics of the high school have been those who are most concerned about its improvement and who have its welfare at heart.

We hear much said about the tremendous increase in the enrolment in the secondary schools. It is true that great strides have been made in the last forty years, and we do enroll approximately fifty per cent of the population of high school age in our high schools, but it is time that we begin to consider seriously the tremendous elimination that is going on from our high schools. About half of those who enter the first year drop out before the fourth year. This high mortality suggests at least that the high school is not meeting the needs, interests, and

capacities of a large proportion of its students. Is it any wonder that the high schools are being criticised by the public when fifty per cent of the select fifty per cent who enroll drop out before completing the course? The day when the public will demand an accounting for the funds being spent on the teaching of algebra, Latin, French, geometry, history, English, and the rest is upon us.

III

What will be the nature of the curriculum for educating youth for the new age? The new curriculum must be broad and varied enough to provide appropriate education for all normal youth of the state. It must meet the interests, needs, and abilities of each individual.

Our new civilization needs men and women of varied interests, capacities, and abilities, adequately trained, and thoroughly imbued with the ideals of our new civilization. And these ideals must be clearly formulated, for as James Truslow Adams says, in *The Epic of America*, "Unless we can agree in what the values of life are we clearly have no goal in education, and if we have no goal, the discussion of methods is merely futile."

The curriculum for the new age must provide as many opportunities as there are major differences in the abilities, aptitudes, interests, and probable future needs of individuals. Obviously this new curriculum must be much more comprehensive than is the traditional curriculum.

The new high school must provide programs for at least eight different fields of activity if it is to provide adequately for all individual and social needs.

1. The first and most important field of activity centers around the social sciences. The new school must provide varied activities dealing with human relationships so that students will develop correct social attitudes, habits, ideals, and skills; that they will develop tolerant understandings of human relationships; that they may understand the social and economic problems around them—problems of government, finance, industrial management, unemployment, trade, war, economic depression, and the like—and bring to bear intelligent suggestions for solution upon them; and, finally, that they will develop willingness and ability to perform the duties and accept the responsibilities of citizenship in a democratic society.

This will require more than merely taking courses in civics, history, economics, government, and the like. It will require working out an integrated social studies program organized around social and economic problems that will create and hold the genuine interest and challenge the intellectual ability of the students.

2. The second field of activity centers around the natural sciences. The purpose here will not be to develop scientists, nor to study in detail structure, form, and classification; nor to prepare for the next course in science; but to lead students, according to their needs, interests, and capacities to explore and learn about their natural environment, to learn something about the general principles and methods of science, of scientific and natural laws, and above all to know the practical applications of science to everyday problems of life and to human welfare. Here again the activities must center, not around a text-book, but around the problems that confront the individual in his daily life.

3. The third field of activity centers around the language arts. Here the ability to speak and write the English language correctly and effectively, in order that students may be prepared to perform the ordinary oral and written activities of everyday life, is of first rate importance. But instead of having the work consist of "having grammar" or "doing punctuation exercises" or "writing a theme," the mere suggestion of which tends to curb rather than encourage the expression of ideas, it should be based upon vital activities in the lives of the students.

These activities should grow out of the actual situations arising in the school and community. First-hand experience gives rise to intellectual and emotional stimulation which is the essential source of expression. The extra-curricular activities of the school, and correlation of English with other departments in the school provide genuine opportunities for developing correct oral and written English. Examples of such activities are the school paper, a literary magazine produced by the school, reports on hobbies, competitive essay, poetry, and short-story writing, biographies, debates, radio talks, story-telling, conversation and discussion, giving instructions and explanations, announcements, reports, and the like.

4. The fourth group of activities centers around the development of knowledge and habits that will result in physical and mental health and efficiency. Without good physical and mental health the rest of the educational program can be of little avail in producing a socially efficient individual. This health

program will include periodic physical examinations by competent doctors and nurses, with provisions for appropriate remedial measures where needed, and definite provisions for physical education for all. This will include gymnasium and playground work, games, contests, sports, and the like.

The program must also include such health activities and instruction as will develop knowledge and appreciation of the principles governing the care of the body, importance of home and community sanitation, knowledge of the more common contagious and communicable diseases and a realization of the importance of guarding against them. The health program must also develop ideals and habits that will result in healthy mental attitudes; it must develop self-confidence, self-reliance, persistence in attaining worthwhile purposes, and the habit of facing realities without undue emotional disturbance. In this program the school will work in close cooperation with the home and other agencies in order that health may become a manner of living and understanding rather than a thing apart from everyday living.

5. The fifth group of activities centers around the preparation of high school students for worthy participation in the economic life of society. This means more than mere trade training. It means providing a varied program of activities so that pupils of different interests, needs, and abilities may discover their special interests and aptitudes, that they may understand the significance of various vocations, that they may develop knowledges, skills, habits, and thinking processes involved in vocational activities in such fields as electricity, woodworking, auto mechanics, printing, typewriting, painting, farming, and the like.

More than this, the industrial arts program should develop in young people worthy ideals and attitudes toward business relationships; it should develop in them a sympathetic understanding of the relation between fellow members of a vocation, between vocational groups, between employee and employer, and between producer and consumer, and it should inculcate a desire to deal justly and honorably with all.

6. The sixth group of activities centers around the preparation of the individual to meet wisely and successfully the problems of family life. This program must include more than the teaching of home economics to girls. Boys, too, are members of the family group, and in time they will become at least the nominal heads of households. Therefore the home-membership program of activities must be broad and varied enough so as to

give that training and to inculcate those attitudes and ideals which will develop happy family life. This involves such matters as household management, budgeting of funds, knowledge of foods and their effect on health, ability in girls (and perhaps in boys also) to cook and sew, ability in boys to do ordinary repairs and simple construction work about the home, ability to select and make use of conveniences and home comforts in accordance with financial circumstances, knowledge and appreciation of the personal, social, and moral influences necessary for the proper care and training of children, the development of ideals, attitudes, and habits that will tend to establish and maintain harmony in the home, and the like.

7. The seventh group of activities relates to the fine arts. Let us hope that the day is gone when the fine arts—music, painting, drawing, sculpturing, designing, dramatics, etc.—will be looked upon as fads and frills of education.

A good program of fine arts activities will develop and enrich the aesthetic and emotional sides of life which will lead to wider appreciation of the cultural and beautiful in life and to a wider sphere of recreational activities as well. Besides the wide field of usefulness of the fine arts from the consumer, that is, the appreciation point of view, there is the equally useful, though somewhat more restricted producer field. Production must not be interpreted wholly in vocational terms. The artist, the musician, the composer, the dramatist, the writer, the sculptor, in short, the artistic creator in any field may or may not produce a marketable product. The fact that his art gives him a medium for the expression of his emotions and an outlet for his creative desires is sufficient reward for its pursuit.

8. The eighth and final group of activities centers around the development of ethical and aesthetic standards for the enjoyment of leisure time. This includes the whole field of the so-called extra-curriculum as well as the fine arts, literature, and, for many students, various activities from some of the foregoing groups. The responsibility of the school in the field of leisure-time activities is as follows: to help the individual to be able to use his leisure time worthily and beneficially to himself and to society; to help him develop ethical and æsthetic standards for leisure-time enjoyment; to help him develop skills and habits that will enable him to pursue some leisure-time activities independently; to help him develop interests that are the means of personal enjoyment and at the same time of individual and social benefit; and to provide opportunities for discovering and developing new and hidden interests.

IV

It is obvious that in order to carry out the provisions of the program outlined here, at least two conditions that do not now prevail in the vast majority of communities are necessary. These are, first, more comprehensive schools, and, second, more competent teachers. Both of these conditions may be attained just as soon as we, as a people, make up our minds that we want them. The small, inefficient, expensive high schools can be eliminated and good consolidated schools can be built that will provide opportunities for this broader curriculum, if, and when we become convinced of the necessity of a real education for the preservation and promotion of the accepted social ideals.

The comprehensive high school will play an important part in the activities of the community which it serves. It will be the intellectual and social center of the community. It will be the center for the education of all the people who wish to avail themselves of it. Through its extensive curricular offerings for all normal boys and girls of high school age, and through its adult education program, this high school will radiate its influence to every part of the community.

To carry out the provisions of this school will require teachers of wide professional, practical, academic, and cultural training. These, too, may be had if we desire them. In the new age the teacher will be so well qualified by training and culture for the service that he is to render that he will be the foremost citizen in the community, and he will be respected and treated as such. He will be chosen with the expectancy that he will be a permanent citizen of the community as is the doctor and the lawyer. "The schoolmaster of the new age," says Briggs, "will have great responsibility and must develop a courage based upon assurance that he is carrying out a popular program for the general good."

THE FILM IN EDUCATION

BY

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With a few exceptions, teachers in this country seem to look upon the proposal to use films as an aid to their work with some distaste and suspicion. Yet the idea is not new and its birth was almost coincident with that of the cinema itself. It is evidently not necessary to go into details what other countries have done, but it may be of interest to know the great work done in this field with the result that they have now made teachers aware of the immense possibilities of the new instrument. We cannot deny that in the short space of one generation the cinema has established itself as, perhaps, the most potent single influence in our civilisation. The multiplication of palatial theatres—and their attendant queues of ‘fans’—testify to its attractiveness to all sections of the people.

Furthermore, the use of visual aids is recommended by all who put forward demands for fundamental changes in conventional methods and curricula. In fact, practically the only factor common to all the newer schemes is their protest against the overwhelmingly linguistic bias of our education. A mere knowledge of words and a superficial acquaintance with concepts acquired at second hand are condemned as harmful and useless. What is asked for is the cultivation of an interest in real things, an understanding of the connections between them, a concentration on what can be seen and perceived at first hand.

Value of Film.

Films offer one of the easiest ways of conveying to the child some knowledge of a world wider than that of the home or of the school. An information is presented to him by pictures, satisfying and easy to understand, rather than by comparatively abstract words the full meaning of which is often beyond him.

It is, therefore, both interesting and important to consider how this difference between desirable possibilities and disappointing actualities can have arisen.



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Of course, there are financial difficulties—there always are in education. But they can be overcome if teachers were really determined to use the cinema, much in the same way that money is provided for the excellent laboratories demanded by science specialists.

The truth is that no interest is taken, and many teachers seem to be convinced that the film will be of immense value in every subject but their own. This lack of real enthusiasm is due mainly to lack of knowledge and only the passage of time can be expected to cure this comparative apathy.

Subjects Best Suited for Film Teaching.

It is necessary to examine which departments of school work can best be dealt with by the moving picture. I am not attempting to make an exhaustive study of each of these subjects in relation to films but simply trying to indicate the broad lines upon which development seems to me to be most profitable.

Certainly in Geography the film can be a powerful illustrative medium. It can depict the actual life of people in foreign countries, and can subsequently be used by the teacher to summarise a series of lessons. As geography teaching becomes more scientific, films involving the use of diagrams, graphs, statistics, contours and sections will be increasingly needed. Through them lessons in such subjects as isobars and isotherms can be given and can be followed immediately by pictures illustrating the effects of climate upon the lives of people in different parts of the world.

Natural phenomena can be better shown by the film than by any other method, and in this connection there is a need for a liberal supply of films illustrating waterfalls, icebergs, mountains, river rapids, volcanoes, eclipses of the sun and moon. Films are also needed showing typical human activities in various parts of the world, for example, tea plantations, sugar and rice growing, mining for coal and gold, cattle rearing, sheep rearing, rubber growing, iron and steel industries, ship-building. Engineering feats such as mountain railways, hydraulic lifts and bridge building can also be illustrated.

Through the more general use of well-constructed geography films the industrial and economic problems of life can be made clearer to young people, who will then become more fitted for their duties as citizens and workers.

In science teaching the film can be a powerful ally. The principles of common mechanical devices such as the pulley or lever can be demonstrated and the whole subject can be summed

up; for example, cranes at work in the construction of cantilever bridges.

Though it can never be a substitute for personal investigation into subjects like chemistry and biology, it can illustrate processes and exhibit continuous development. Slow-motion photography and micro-cinematography are opening up vast new possibilities in this field of study. This especially applies to the study of natural science, in which films can arouse interest in the wonders of nature, and can foster a desire for scientific enquiry.

In the teaching of history the place of the film must ultimately be an important one. But the reconstruction of history through the film is an intensely difficult matter, and can only be undertaken with the aid of experts. In no other branch of school work does the possibility of inaccuracy loom so large. Moreover the production of films which are in the nature of pageants is an expensive undertaking.

Films can be made to represent some of the events of social and industrial history. The filming of stage plays which have been produced with great attention to accuracy and historical detail in costume and scenery, would make them available for schools and educational institutions of all types.

Again, the cartoon film can come to the aid of teachers in dealing, for example, with economic history or in showing the spread of culture following movements of population.

English Teaching and Foreign Languages.

The coming of the sound film opens up great possibilities in the teaching of English and through it pupils can be helped to acquire both facility in speech and a large vocabulary as well as correct articulation and pronunciation. Speech-training is pre-eminently the function of the schools and properly constructed sound films can materially assist in the correction of slovenly and incorrect habits of speech acquired out of school. The two great faults usually associated with defective speech and incorrect pronunciation can be attacked by the teacher with the help of sound films.

Sound films can undoubtedly contribute vitally to the teaching of foreign languages. They can help to develop the ability to speak them correctly, to avoid incorrect pronunciation and to adapt them to the atmosphere of the countries in which they are used by the people.

In the realm of drawing and applied art the film might play a large part by bringing vividly before the pupil's eyes the works of the great artists of the world, not only in pictures and sculpture

but in architecture and in furniture, accompanied by commentary upon them by authorities of acknowledged eminence. Such a contribution to the work of the schools would result in a greater recognition of the importance to the whole community of a finer taste, and would help in the attainment of a better standard of artistic appreciation especially in regard to home decoration.

No matter in what sphere the film is used, it can perform the essential function of widening the intellectual horizon of the pupils.

MUSEUMS IN SCHOOLS

BY

RAGHUBIR SAHAY NIGAM, B.Sc., L.T.

The modern world with its complex and commodious environment in all its multiplicity has begun to press so insistently on the cloistered seclusion of the school that the school cannot help becoming a microcosm of the world as seen by youthful eyes. There will happily always subsist a difference that the motive force in one is 'play' and in the other 'existence.'

The environment is so complex and the surrounding world full of so many things that a young man entering the world would be bewildered unless he has had sufficient empirical knowledge of it, personal not vicarious. Mere abstractions, wordy mentions, in books about the things, will not give that knowledge which one must acquire to be able to utilize the environment to the full extent. Hence the school museum should be an objective encyclopædia of knowledge. Further all the wordy knowledge that is besprinkled on the printed page has sublimated from things, and it is essential for a mind to see this process in a vivified form in controlled sectors.

The School Museum must not only house the trophies of children's collective instinct, but must contain any and every thing of which a wordy mention is made in the class-room, or to which a reference in any form can be found in the teaching if it is to be rendered live. The habit of classifying (generic classification) can be systematically developed only in this way. There is a species of people who can see the generic uniformity or the æsthetic or moral grandeur in a thing only when it is in the print or has been reported.

The writer has set up such museums in two High Schools. But it should not mean that he started from the leisured idle musings in an arm-chair and set about converting ideas into material. It is the other way about. In one school during the course of an excursion to a Buddhist site some material was collected by the boys. There was the germ. The constructive imagination did the hatching. In another school the newly constructed rooms were utterly unfit for teaching purposes and there were pieces of statuary lying about in the neighbourhood. The spark of collecting instinct set fire to the old enthusiasm with

the result that the whole developmental period of seven years was ontogenically done in as many months.

An ideal Nature Study Museum should be a representative of the local fauna and flora not only in its adult form, but in all stages of ontogenic development. It should also contain all 'curiosities' of nature that can be procured for love, money, begging enterprises etc. Besides the collections of the boys from the locality one of the museums contained the following:—

- (1) About 400 specimens of insects from the Forest Research Institute, Dehradun;
- (2) Specimens of invertebrate life from the Zoological Survey of India;
- (3) Forest produce from the Coniferous region of the hills;
- (4) Shells from the Andamans, sea-corals etc.

The Geography Museum of the same school had:—

- (1) A plethora of maps, charts, diagrams, pictures etc., (including models of globes and other things) made in the school;
- (2) Models in Cartridge paper of 'Life in different lands' coloured and set up by boys;
- (3) Models of houses in different lands made of cardboard or the real material by the boys in the school;
- (4) Samples of different stages in the preparation of
(a) Cotton, woollen and silk fabric; (b) Cement, glass, petroleum, turpentine, paper, tea, coffee;
(c) Pure iron and copper from the ores;
- (5) P. Cox's sets* of (i) Precious stones, (ii) Minerals, (iii) Metallic ores, (iv) Rocks, (v) Wood and its uses;
- (6) Minerals from the mines of Jaipur, Bikaner, Panna, Chhatarpur, Gwalior etc.;
- (7) Minerals collected by the Geological Survey of India and the Tatas;
- (8) Samples of economic produce from the Dehradun Institute;
- (9) Samples of wood from Dehradun, Ceylon, Malay, and Andamans;
- (10) Samples of soils from the different parts of India;

- (11) Samples of cereals from different countries and of different strains;
- (12) Samples of chemical and organic manures;
- (13) Billets of wood from the neighbouring jungles with their leaves, flowers, fruits and properties of all;
- (14) Ethnological material showing the life of two primitive peoples (their dress, implements, containers, nets, musical instruments etc.);
- (15) Industrial products from the Alipore Test House;
- (16) Stamps and coins of different countries;
- (17) Different samples of rocks collected in the hills and from the moraine of a glacier;
- (18) Models of docks, markets, railway stations, etc., made in cardboard by the boys;
- (19) Models of modes of transport in different countries.

The contents of the Historical Museum of that school were:—

- (1) Pieces of statuary, Terra-cotta material, pottery, bricks etc.;
- (2) MSS., Coins (collected or purchased), casts of other coins;

(A list of the essential coins and enstampages was prepared by Mr. J. C. Powell-Price, I.E.S., some years back.)

- (3) Enstampages of important epigraphs;
- (4) Models of modes of ancient and modern warfare;
- (5) Models of modes of ancient and modern transport;
- (6) Models in washing soap, soap-stone and paraffin prepared by the boys in the school of historical buildings like the Taj Mahal, statuettes of different periods, seals of Mohenjodaro;
- (7) Models of historical buildings in cardboard made by the boys of such buildings as the Tomb of Gayasuddin Tuglaq, Panch Mahal, Dewan-i-am etc.;
- (8) Pictures (enlarged in the school or purchased), post-cards, maps, illustrations made in the school;
- (9) Models of British History prepared in the school on the basis of the books (i) History in Pictures and (ii) Handwork in History.

The Handwork Museum of the School consisted besides Drawing work of boys the following:—

- (1) Samples of work according to a systematic course in card-board modelling, paper-folding and cutting, in addition to work in washing-soap, paraffin-wax etc.;
- (2) Fretwork in wood.

There were also Hygiene and Agricultural Museums.

All these mentioned above did not cost more than Rs. 300. The most essential thing is the will to do it in the workers and imagination on the part of the Management.

DEDICATED TO DR. MONTESSORI

IN THE NAME OF THE CHILD

by

U. B. Vaswani

She comes, she comes, she comes.

1. Forlorn and fearful, he
Bemoaned and sighed unheard;
Innocent child
By tricks beguiled
To school like captive bird
Adult's bond-slave to be!
There in the dull and dismal home,
Hung on the cross of school,
The martyred child thus prayed:
" O come,
" Lift me from sorrow's pool! "
An' she comes, she comes, she comes.
2. She comes, she comes, thy mother comes,
Look up, O child, she's there;
She brings thee " gifts " of knowledge true,
Of work that'll make thee fair.
Lift up thine eyes, behold, O child,
Thy goddess mother smiles;
Old year is dead, NEW YEAR is born,
Fresh gifts for thee she piles!

AN INTERNATIONAL GOODWILL COVENANT FOR YOUTH

We the children and youth of every land, because we are brothers and sisters and are equals in physical and spiritual qualities, and because we wish to express in definite form our feelings of goodwill toward one another, do hereby covenant:

1. That we will seek to hold through life an attitude of respect and love for one another.

2. That we will seek to cultivate each other's acquaintance and friendship.

3. That we will seek to understand each other's motives and purposes and to give credit for honesty and sincerity.

4. That we will seek to be of mutual help in the solving of national and international problems.

5. That we will seek to understand and respect each other's customs and traditions.

6. That though we may differ in religion we will give credit to all races and peoples for sincerity in their religious beliefs and practices.

7. That we will exert every effort to prevent militarization of youth in any land.

8. That we will earnestly strive to prevent war and to establish peace in all the world.

9. That we will cooperate in all activities which will help to make the world better economically, morally, and spiritually.

10. That in all our relations with one another we will seek to be fair and just, taking as our guide the Golden Rule as known in all lands.

—WORLD EDUCATION.

THE TEACHER

The teacher is a prophet.

He lays the foundations of tomorrow.

The teacher is an artist.

He works with the precious clay of unfolding personality.

The teacher is a friend.

His heart responds to the faith and devotion of his students.

The teacher is a citizen.

He is selected and licensed for the improvement of society.

The teacher is an interpreter.

Out of his maturer and wider life he seeks to guide the young.

The teacher is a builder.

He works with the higher and finer values of civilization.

The teacher is a culture-bearer.

He leads the way toward worthier tastes, saner attitudes, more gracious manners, higher intelligence.

The teacher is a planner.

He sees the young lives before him as a part of a great system which shall grow stronger in the light of truth.

The teacher is a pioneer.

He is always attempting the impossible and winning out.

The teacher is a reformer.

He seeks to remove the handicaps that weaken and destroy life.

The teacher is a believer.

He has abiding faith in the improvability of the race.

—JOY ELMER MORGAN.

REVIEWS

Latin:—Its Place and Value in Education. By C. W. Valentine. (Six shillings. University of London Press.)

For ages classical languages have been given a position of honour amongst the various subjects taught in schools. Time there was when a thorough grounding in the classical literature was regarded as a sign of culture and good education. With the growth of scientific knowledge in the last century the claim of science for a place in the school curriculum was pressed by such eminent writers as Darwin, Spencer and Huxley. The growing complexity of modern life is not without its consequences for the school curriculum which in turn has been made more involved and complex. Thus we find that a boy of to-day in the secondary school has to study more subjects in number than was the case with his predecessor two decades earlier. This has naturally enough raised the question of the relative importance of the various subjects—a field rich with problems for the pedagogic research workers.

Prof. Valentine's book is a valuable contribution to this problem inasmuch as it examines carefully the claims of a subject which has held prominence in the school curriculum for many centuries. Prejudices in favour of making Latin a compulsory subject are found to be strong as these have grown with the traditions that have gathered round the subject. To evaluate Latin as a part of the school curriculum becomes quite difficult job in the face of these prejudices. The author claims that the educational values attributed to the study of Latin—memory training, general culture, aesthetic culture—are not peculiar to this subject. These could be acquired by studying modern languages and science. The author is in favour of discouraging the move to make Latin compulsory for all. His suggestion that classics should be studied by the selected few should be welcome and given a trial. What has been said of Latin in this book can be said equally well about Sanskrit and Persian in this country.

Sane Schooling. By J. H. Simpson. (Seven shillings and six pence. Faber and Faber.)

This is the report of an educational and social experiment conducted to provide those facilities which are the privilege of the few in the higher social position, to a selected number of boys. The students enjoyed exceptional freedom. The main bulk of the book records observations on the boys under these conditions. The following are some of the topics discussed:—mixing the social classes, treatment of games, treatment of sex problems, education for health, freedom and discipline. The efficiency of a school, according to the author, is judged by the extent to which its old boys make good; not what they are on leaving the school, but whether a few years later, they have shown themselves adaptable, desirous of continuing to learn, able to retain the best of what they have acquired.

The Teacher in Training. By J. C. Hill. (Five Shillings. Allen and Unwin—1935.)

This book has been written by one, who has an extensive and first-hand experience of teaching conditions, both as a Training College lecturer as well as an inspector of schools. The first few chapters deal with the theoretical foundations of teaching and the general principles. The second part shows how the general principles can be of use in teaching various subjects. The volume can be recommended as an indispensable manual for the young teachers and students in training.

Testing Children's Development from Birth to School Age. By Charlotte Buhler R. Hetzer. (12½ shillings. Allen Unwin.)

The well known author of this book has already been introduced to the English-speaking world as the author of '*From Birth to Maternity*.' The work, that she has been doing in the University of Vienna in assessing the development of normal children, constitutes a worthwhile contribution to the young science of child psychology. The tests given in this book have been evolved as the result of many years' work and test the various aspects of child's personality. What is tested by these tests is classified by Mrs. Buhler as under: (1) Perceptual activity; (2) Activities aiming at achieving control of the environments; (3) Activities designed to achieve control of the social environments; (4) Control over bodily activities; (5) Mental productivities including the work of art. With the

help of these tests mental retardation of pre-school children can be detected early in life and proper treatment can be given. There are chapters in the book describing the material and method of giving and evaluating these tests.

Youth and Leisure. A Survey of Girls' Organisation in England and Wales. (2½ Shillings. Constable, Edinburgh.)

With the organisation of work hours in our industrial age the problem of spending the leisure time is becoming a serious problem of civilization. To many under-worked people leisure brings boredom having a depressing effect upon them. Again others, not knowing the art of creative work easily, turn to criminal activities in their leisure hours. What is required is the development of the inner resources of the individual so that no longer should leisure remain oppressive but should have a cheering effect. The book under review gives description of the various organisations which offer recreational facilities, the activities of the local educational authorities, and the problems raised by social conditions. The second part of the book details the activities of the National Council of Girls' Clubs.

Play in Childhood. By Margaret Lowenfeld, M.R.C.S., L.R.C.P., Co-Director of The Institute of Child Psychology. (8½ shillings. Victor Gollancz Ltd., London.)

For most people, play is nothing but a sort of non-serious activity of the individual, having no special meaning in it except that it relieves the individual of his worries. Dr. Lowenfeld however makes quite a serious use of the child's play. Through her work at the children's clinic she has found a meaning in the child's play which has helped her to treat the neurotic child medically. The play of a child according to Dr. Lowenfeld may have been motivated by one or many factors. Such factors, for examples, may be to control environments, or to overcome a certain worry, or it may be in giving certain unconscious satisfaction to the child. It is important that the teachers understand these motives so that they may deal with the children adequately. The book is rich with examples from the clinical experience. In one of the chapters technique and methods of observation of the children's play are given.

—P. R.

EDITORIAL NOTES

BY

F. G. PEARCE, B.A. (Cantab.).

At the meeting of the Executive of the All-India Federation of Educational Associations which was held last month in Gwalior, with Principal Seshadri in the chair, the programme of the forthcoming Conference of the Federation, to be held in Gwalior, was outlined. Details will probably be available in our next issue, but it is certainly safe to say that the Conference is likely to be one of the most interesting so far held by the Federation.

One of the features in which it is hoped that this conference will show a marked improvement over most of the previous ones is the sectional meetings. These, if properly prepared for, ought to be the most valuable part of the conference for regular workers in the educational field, for it is only in the sectional meetings that it is possible to deal with the *details* of our educational problems, and to exchange ideas with other workers by means of questions and discussions.

The standard of public lectures delivered at our conferences has always been a high one, but it is impossible, and undesirable, that public lectures should ever occupy so important a place in the programme as practically to claim the main attention of those who attend the conference. If that were ever to happen, the very name of the gathering would lose its significance; it should be termed a '*convention*' rather than a '*conference*,' if its participants come only to listen and not to question and discuss. It is good, therefore, that the improvement of the sectional meetings is engaging the attention of the Executive. Such improvement can hardly take place, however, without the very active co-operation of the Secretaries in charge of the various Sections. This is always a difficulty, because those Secretaries are scattered all over India, and when one Conference has dispersed they rarely meet, and never as a body, until the next is in session. Sectional meetings, in consequence, have hitherto generally provided no more satisfying fare than the reading of papers on subjects some of which had not been announced beforehand to the delegates. In some cases the papers were so good that one would have wished, if not to study them beforehand, at least to have plenty of time for questions and discussion on them;

but even that opportunity had generally to be denied or reduced to inadequacy, because others were waiting to read their papers, some of which were feeble and commonplace in the extreme and merely wasted the time of the meeting. Yet the opportunity to read them could hardly be denied to their authors when they had taken the trouble to submit them beforehand, and the Secretary had to promise them a place in his programme, because more competent persons had failed to send their contributions to him in time.

There seems to be only one way of overcoming this difficulty, and it was placed before the meeting of local Sectional Secretaries on this occasion at Gwalior. It is this. Instead of simply asking for papers on *any* aspect of his subject to which a Section is devoted, the Secretary (in consultation with the local Sectional Secretary of the coming Conference), should decide upon *one*, or at the most *two*, important aspects of his subject, to which his Section will limit itself at the next Conference. The topic or topics chosen should be announced in the Press, several months before the Conference meets. Furthermore, the Secretary should secure at least two papers, on one or both of the topics, from distinguished workers in that particular field, or at least from workers who are engaged in actual experiments in that field and who, therefore, are in a position to contribute some really useful constructive material to the Sectional meeting. The subjects of those papers, and the names of their authors should also be announced in the Press, and even if the authors should unfortunately be prevented from attending the Conference in person, their papers should be read at the Sectional meeting, and should form the basis for discussion. If the authors can attend, and answer questions and take part in discussion, so much the better. But even if they cannot, their contribution will provide some matter of real value for the other delegates to hear and discuss, and, as the topics have been previously announced, people who are really keen will come prepared with their own views and questions, and the meeting will make a positive contribution to knowledge of the Sectional subject, which is more than can be said of most of the Sectional meetings as at present conducted.

If it is thought that it is placing too much power in the hands of a Sectional Secretary to leave it entirely to him (with his local colleague) to decide on the topic of the next Conference's Sectional meeting, then such procedure should be followed *this year only*, and at the forthcoming Conference each Section may decide the topic or topics for its meeting of the next year; if that is done every year, then all will know the Sectional topic a whole

year ahead, and there will be a good chance of getting some really valuable papers. These, when published in the proceedings of the Conference will show to the public that our Federation is contributing not only towards the discussion of the general problems of Indian education, and the formation of public opinion about it, but is also making some really constructive contributions towards the solutions of problems of method, and other details, which it is the chief function of our Sectional meetings to deal with.

The Executive approved of this procedure being tried for the coming Conference. I, therefore, take this opportunity of asking Sectional Secretaries to communicate with their local Secretaries *at once*, if they have not already done so, and to take action along the lines suggested, as quickly as possible. *The topic or topics decided upon for the Sectional meetings of the forthcoming Conference should be communicated to the General Secretary as soon as they have been fixed*, and the titles of at least two good papers and the names of their authors should follow, when arrangements have been definitely made to secure them. If this part of the procedure can be completed before the middle of October, it will at any rate give others two full months to prepare to do their share. Sectional Secretaries are therefore particularly requested to set the ball rolling by settling their Sectional topics, and informing the General Secretary of them.

Another useful new feature of the next Conference will be the provision of more time in the programme for the New Education Fellowship to hold its meetings. In previous years the All-India Conference has been glad to include distinguished educationists who belong to the Fellowship among the list of its evening lecturers, and last year the Fellowship was also permitted to hold its general meeting in the Conference pandal at a time when other Conference delegates could also attend if they wished. This year there will not only be the usual opportunities to hear lectures by prominent members of the Fellowship, but a whole morning has been given to the Fellowship for its own conference, which will of course be open to all our Conference delegates.

It seems appropriate to add a few words here, not only in explanation of what the New Education Fellowship is and what it does, but also to make clear exactly the position it holds in the All-India Conference and why it should be there.

"*The New Education Fellowship*" was founded in 1915; it was first known as "*the Fraternity in Education*." From the first it was an international movement intended to unite those who believed that the problems threatening our civilisation were

basically problems of human relationship which demanded a new type of education more responsive to the requirements of a changing world. In 1921 the Fellowship held its first international conference at Calais, France. Since then it has spread throughout the world, and it now has fifty-one national sections and runs twenty-three educational journals in fifteen different languages. It holds regional or national conferences every year, and a World Conference every three years. It acts as a permanent working laboratory in which new developments in educational thought and practice in different lands can be exhibited and discussed throughout the world. It maintains friendly personal contacts between educational thinkers and practitioners in different countries and thus contributes notably to the feeling of human solidarity among those engaged in education.

The New Education Fellowship numbers among those connected with it some of the most distinguished educational figures in the world. Sir Michael Sadler and Sir Percy Nunn take an active part in its work in England: Dr. William Boyd, Head of the Department of Education, Glasgow University, is on its International Governing Body as is also Dr. Harold Rugg of Colombia University. Dr. John Dewey is its American head, with Dr. Carleton Washburne as Vice-President; Dr. Rabindranath Tagore is the President of the Indian National Section of the Fellowship, and Sir S. Radhakrishnan is the Vice-President: India has branches of the Fellowship working in Bengal, the United Provinces, the Punjab, the Central Provinces, and in Mysore State. Dr. R. P. Paranjpye is the President of the United Provinces branch.

It may be wondered why the Fellowship has not hitherto been more prominent in the All-India Conference, and also why, when it is already international in its scope, it should be willing to play an almost subsidiary part in the Conference of our All-India Federation. Both questions can be answered to the credit of the Fellowship. In the first place, it has been hitherto, as far as India is concerned, more or less a body of isolated researchers and experimenters, who have met mostly in their own provincial centres, and have held no All-India meeting. The reason why it is anxious to meet along with our Conference and in co-operation with us is that its workers do not wish to give an impression that they are unwilling to share with all their fellow-members of the profession anything of value that they may have gained through their experience, or equally to learn from them. Our All-India Federation is by far the largest and most comprehensive educational body in this country; it represents the rank and file

as well as the *élite* of our educational workers and a considerable proportion of those engaged in educational administration; while the New Education Fellowship, as its name implies, represents mainly those interested or engaged in educational experiments of one kind or another. It is obviously of the greatest importance that there should not merely be frequent friendly contact between the two bodies, but that we should bring the Fellowship members into closer touch with us, so that *we* familiarise ourselves with the new developments which it is *their* chief function to foster and collate,—not only those of this country (which are quite numerous, though scattered) but also those of other countries.

It is very much to the good, therefore, that the New Education Fellowship should have decided to hold its All-India meeting at our Conference; and our Executive is to be congratulated on having decided to keep a whole morning of the Conference programme free for the meetings of the Fellowship, so that such of our delegates as are interested in modern developments in education both inside and outside this country, may take advantage of the occasion to meet and to hear those who make such developments their main concern.

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Editors' Note

The Editors will be glad to receive contributions on all matters educational and particularly invite for publication (a) authoritative articles on educational topics; (b) short articles dealing with educational research; (c) accounts of educational experiments; (d) articles containing statistics and their application to the solution of educational problems; (e) short notices of original works; (f) news of interest to educational workers.

All contributions should reach the Managing Editor five weeks before the beginning of the month in which publication is desired and should be addressed to Post-Box 52, Cawnpore.

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THE FIVE LAMPS OF EDUCATION

BY

PRINCIPAL P. SESHADRI, M.A.,

President, All-India Federation of Educational Associations.

Introduction.

Ruskin enumerated the fundamental principles which ought to regulate Architecture in his *Seven Lamps of Architecture* and his example has been followed in recent years by the Hon'ble Mr. Justice Parry in his *Seven Lamps of Advocacy*. One may, therefore, perhaps venture upon stating the requisites of the teacher's art by writing on the Lamps of Education, at least within the compass of a short article, if not in a formal and elaborate treatise, being also content with a smaller number of Lamps than seven.

I. Knowledge.

There is nothing more important to the teacher than the guidance of knowledge, and one who is not anxious to acquire it every moment of his life, may as well bid farewell to all hopes of distinguishing oneself as a teacher. It is a great mistake to imagine that the preliminary intellectual qualifications with which a teacher starts are enough for his work. Often they are not, and imply only a beginning on the long and toilsome journey one has to undertake in the profession. Even the most brilliant of young men can acquire only an infinitesimal part of the total amount of knowledge in any particular branch of study during their stay at school or college, and it is only by persistent application in later years that they can cover any substantial part of the ground. Then what about the ravages of forgetfulness?

What about the increase in knowledge with which one can hardly keep pace unless one is very vigilant in watching and strenuous in his industry?

The ideal of the knowledge to be acquired should be far above the every-day needs of teaching. It is a fatal mistake to aim only at knowing just what is enough to communicate to the class. A background of higher knowledge gives one a sense of confidence in his work of teaching and enables him to perceive the full bearings of the subject in all its details. The accuracy and precision necessary in all good teaching can come only to the teacher with deep and profound knowledge and one of the most serious lapses in a teacher's work is the absence of these qualities. It is a common experience that young pupils have often to be corrected regarding the inaccurate details of knowledge they have acquired from half-educated teachers.

The Lamp of Knowledge is of course intended to include knowledge of methods of teaching, quite as much as knowledge of the subject itself, the two qualities together constituting the essentials of teaching on the purely intellectual side. Educational methods have advanced so much in recent decades, that it is almost criminal on the part of any teacher, not to place the latest knowledge and experience of methods at the disposal of his class. A good deal of teaching work is usually rendered futile for want of training on the part of the teacher. There is hardly a single profession even among the artisan class for the effective practice of which a good deal of apprenticeship and training are not necessary. Is it conceivable that the teacher's work alone does not need any training?

II. Love.

The Lamp of Knowledge cannot light us a long way on our path, unless it is also accompanied by what may be called the *Lamp of Love*. The teacher deals in his classroom, not with mechanical units to be marshalled and manipulated in accordance with certain rigid and immutable scientific principles, but with highly delicate human organisms, each with a peculiarity of its own requiring the most careful and affectionate guidance. He can be compared to a highly gifted gardener whose persistent endeavours and vigilant watching enable the flowers to blossom into all their sweetness of perfume and beauty of shape. Every educational system makes the unfortunate effort of trying to reduce all to one mechanical pattern; but the successful teacher is he, who continually battles against the danger and is able to

treat the children as independent personalities, each different from the other.

So early as in the sixteenth century, Roger Ascham said in his *Schoolmaster* that knowledge cannot be communicated in an atmosphere of fear, because when fear is roused, all other faculties are in suspense. It is surprising that even today there are teachers, who do not realise the value of this fundamental principle in education. Apart from the fact that affection and sympathy are expected of any decent teacher towards the young pupils entrusted to his charge, they are necessary even for the success of the teacher's work in the classroom and they may be practised at least for this reason, if not for any altruistic motives.

Allied to it is the need for cheerfulness, without which all educational work must be depressing to the taught as well as to the teacher. The teacher must be a centre of joy in the classroom radiating cheerfulness to every child. The teacher's profession is handicapped by a number of disadvantages in emoluments and conditions of service, but cheerfulness is his duty in any adverse circumstances. The story is told by Euripides in his *Alcestis* that when the heroine had just died, her husband Admetus welcomed Hercules as a guest with such cordiality that it was impossible to know that anything so unfortunate had happened. Without intending to advocate what seems an extreme instance of callousness in domestic affections, at least according to modern standards, it may be said that the teacher's duty is somewhat similar. Whatever his troubles in balancing his household budget and however wearying to the flesh and to the mind, his mechanical daily grind of routine duties, he ought to be a picture of joy inspiring the whole class to a happy frame of mind as he gaily swims into the orbit of their vision.

III. Truth.

All the moral qualities necessary to make a teacher a model to his pupils may be said to constitute the *Lamp of Truth*. Whether direct, moral and religious instruction fulfils any useful purpose or not, there is nothing which exercises a more profound influence on a pupil's character than the teacher's own personal example. A high sense of duty, scrupulous adherence to truth; self-respect and dignity; these are qualities, the possession of which in a teacher will be easily noted by his class with highly satisfactory results, though they may not be immediately noticeable.

It has always seemed to me—though I have not seen the point elaborated anywhere—that one of the serious difficulties of the teacher's profession is the high standard of conduct expected to be lived by its members. The responsibilities implied in the French saying, *noblesse oblige*, apply even in a more aggravated form to those in the teaching profession. The teacher cannot afford any lapse in behaviour or conduct, without losing his capacity for success in his work, however eminent his intellectual qualifications. He cannot be caught using bad language, or losing his temper, or even forgetting the laws of decorum without serious consequences. He is always in the limelight, like well known public men, being watched every minute by the Argus eyes of the young people who surround him. The need for high principles is all the greater in his case as his example is infectious, and each act of his is perhaps unconsciously responsible for the conduct of many young men in his neighbourhood.

IV. Sacrifice.

Never a believer in poverty, I have always resented the appeals for sacrifice made to members of the teaching profession, especially by those who have made good in other professions and acquired material possessions far higher than can ever be hoped for by the teacher. The nobility of a profession does not necessarily imply as a logical consequence as some people seem to believe, that the wages should be poor. The teaching profession deserves as good a living wage as any other and its nobility cannot be a substitute for better conditions of service without which it is impossible to achieve a high standard of efficiency.

But there is still a need for the *Lamp of Sacrifice*. Even if all the improvements demanded by the teaching profession are conceded, there would still be need for sacrifice on the part of its members. Its emoluments can never hope to rival those of professions like law and medicine—but it is to the sacrifice of a nobler kind that it is intended to refer here. There is sacrifice in the mere choice of the profession. The teacher has to keep always the company of those who are intellectually very much below him, from whom he can hardly expect any mental or cultural development. A good teacher wears his life out in the service of those who are entrusted to his charge and in a sense may be said to build up other lives at the expense of his own. What greater sacrifice can be expected of any profession?

V. Idealism.

Transcending all these qualities necessary for success in educational work, there is Idealism which ought to be the dominating principle of a teacher's life more than that of any other. In no other profession is there such a demand for loftiness of aim and the cherishing of high ideals. It is idealism which makes the teacher's work yield its highest fruit and is responsible for lifting educational endeavour to glorious success.

EDUCATION GOES TO COLLEGE

BY

JAMES DUANE FEATHERSTONHAUGH, AB, AM.

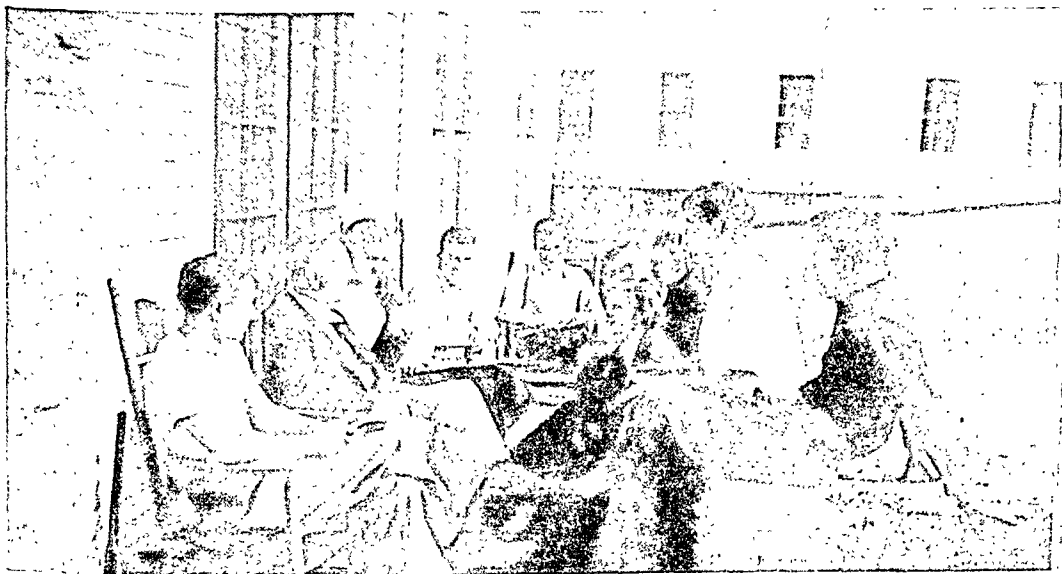
During the past century college education in the United States of America has taken many steps forward, but in doing so it has fallen into the rut of standardization.

Despite the warnings of educators and critics that this standardization was an undesirable thing, and that it would eventually lower the value of higher education by thrusting upon the world millions of young men and women each with a practically identical training, it continued, and when the present world-wide depression was at its worst many parents began to question whether or not college education properly trained their children to take a place in the world and lead useful and intelligent lives. College presidents said that their system was the right one; critics said that it was not. How the argument would have finished is a moot question, but it so happened that it was answered by the birth of a new sort of college; a college where young people instead of being trained in theory were placed in contact with their fellow beings and shown how they should live from life itself. The name of this institution was Black Mountain College, and it was located in the heart of a mountain range in the Southern United States.

Before proceeding further it might not be amiss to pause a moment and consider the average college course in the United States. The entering freshman is given a list of subjects he must study during his first year. If, for example, he were pursuing an arts course he would be compelled to take a year of biology, two years of a foreign language, a year of mathematics, and a year of English. His fifth subject he is at liberty to choose from a list containing three or four subjects he intends to choose for his major in later years. All of this is done without regard for the student's natural interests and without regard for the fact that psychological tests have proven that such subjects as languages and mathematics definitely require a special ability. Because of the special ability required for certain subjects many students have failed in their work or been dismissed from college when they might have done exceptionally well with topics they had a liking or an ability for. The second year the student's



A classroom session at Black Mountain College, showing the informal and natural manner in which the discussions are carried on.
The arrow points to Dr. Rice, founder of the school.



On warm days classes at Black Mountain College are held out of doors. Dr. Rice, founder of the school, is seen second from left, is leading a discussion in Photo.

choice is much the same and during his junior and senior years he is free to choose what subjects he will with the exception that he must select his courses from a field of study selected by him during his second year.

Outside of the classroom each student leads practically the same life. Rules regarding conduct and attendance are laid down by the college regardless of the different needs of the individual and each man is expected to take his first degree in exactly four years, notwithstanding the obvious fact that some students have the ability to complete their work in nine months or a year while others should be given five or six years. No indication is given on the degrees as to the ability of the students and the man who barely passes with a sixty per cent receives exactly the same recognition as the man who has passed all his courses with near-perfect marks.

Early in 1933, Professor John Rice, a young Oxford graduate and for several years a violent critic of the American system of higher education, founded Black Mountain College, in the heart of the Black Mountains in the Southern United States. Just a short time before he had been dismissed from one, Rollins College, because of his trouble-making in opposing the policies of that institution. When he left he was joined by fifteen students and pooling their resources they set off to found the perfect college.

It was Rice's contention that college education as it had developed in the United States failed to prepare young men and women for actual life and that its many rules and regulations regarding conduct and courses were worse than useless because they were, above all, artificial. After a short search he came across an old hotel-like structure and decided that this was to be the institution that would reshape American education. Throwing their efforts together, Rice and the fifteen students plunged into the work of starting the college. What little money they had went into the venture and lacking funds to hire help the little group contributed the manual as well as the mental labour. Other students throughout the country were attracted by the idealistic tendencies of the new school and before the first year was up the student body had grown to over thirty. To-day a hundred and fifty students attend the institution and the possibilities of branches over the country are already being considered.

Once in power, Professor Rice did not fail to stick by his new ideas. His first rule regarding the school was that there was to be no rule excepting "Be Intelligent." As he saw it men and women in real life did not have their conduct regulated for them

and he assumed that by making conditions as near to those found in real life as possible he could properly train his students. He was not wrong in his judgement either, for during the past four years this no-rule plan has worked even better than he dared hope. In almost every other college in the country students are constantly getting into some sort of trouble or difficulty, but there has not been one case of misconduct in the history of the new school, and this despite the fact that the students are perfectly free to come and go as they choose and no attempt is made to separate the men and women or to say what relations they may have among themselves.

Each student is free to study what courses he wishes. There are no limits to the number of courses a student may take and there are no rule regulating their attendance at the classroom. It is not expected that each student must necessarily take the same length of time to graduate and that, too, is left up to the individual. When a student feels that he has acquired sufficient knowledge and experience to justify his receiving a degree he appears before a committee of the faculty who examine him and declare whether or not he is suited to go out into the world as a graduate of the college. Even the old formal classroom has been changed and instead of meeting in the same room with rows of desks each day the students and teachers meet informally in the professors' rooms or under the fine old trees or on the porch when the weather permits.

But Rice did not stop at activities pertaining to students only. In his mind college officers were useless and the gap between students great. Accordingly he abolished the offices of president, dean, secretary, and treasurer and divided their duties among students and teachers who had a liking for the work. Thus students gain an insight into the running of a business institution at the age when students in other colleges are still studying such operations in theory. The students and faculty, with the exception of married ones, he placed in the same building to live and set them to work on the same projects. All manual labour, secretarial work, and other duties are taken care of by the two groups and with the exception of one janitor there is not a paid employee on the campus who is neither teacher nor student. The students have a real part in the running of the college and in addition to holding such offices as secretary and treasurer they hold meetings with the teachers once a month to talk over college affairs. At these meetings a student vote counts the same as a faculty vote.

Outside of the classroom the students and teachers farm,



All vegetables and fruits used at Black Mountain College are raised by the Students and Teachers on nearby farm lands.



Students and Teachers at Black Mountain College take care of all manual labor that there is to be done after class hours.

labour, write or do other tasks of their liking that help support the little community. These activities of community-building take the place of sports and other extra-curricular activities in other colleges but have the advantage of being perfectly natural and useful, instead of artificial and of no real benefit to the group. If, for physical reasons, a student or teacher is unable to take part in the heavy labour or farming that helps support the group he is expected to spend several hours a day in office work.

The idea behind the college is simple. Each student before he leaves is expected to be prepared to lead an intelligent and a useful life and when he feels that he has reached this stage he is graduated. Although there is no stipulation on the time spent before graduation and although the college has already been in existence for more than four years no student has as yet felt himself ready to face the outside world.

A brilliant future is predicted for the little college. Not only have the teachers and the students there already given proof of its value, but college presidents throughout the United States have dropped many of their rigid rules of the past and have adopted the liberal policies of the new institution. Educators and critics have been loud in their praise for the idea and it is commonly agreed upon that Black Mountain College has finally shown the world the way to an ideal college education; an education that is as real in fact as practice as the former methods used to be in theory.

SOME PROBLEMS OF EDUCATION IN BENGAL

BY

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[Opening Address delivered at the Third Annual Session of The North Bengal Education League Conference.]

There are nearly 1250 High Schools in Bengal; of these about 70 per cent or 850 are in rural areas. The improvement of the rural school is, at the present time, one of our most important educational problems. Although it does not present the same aspects in every district, no section is freed from the responsibility of endeavouring to find its solution. It is not a new problem. Ever since the time of the Indian Education Commission of 1882-83, educators have called attention to the deficiencies of the country school. The counts in the indictment which have been brought against it through all these years differ but little—unattractive sites, miserable buildings, insufficient equipment, poorly prepared and poorly paid teachers, inadequate and incompetent supervision, unevenly distributed enrolment, irregular attendance, meagre curriculum and a poorly conducted school. But the need for reform is more strongly and more generally expressed to-day than at any previous period in the country's history.

Less than fifty years ago we were a homogeneous people, with agriculture as the basis of our economic life; city and country were practically on an equality politically, economically and socially. To-day the cities governed by the Bengal Municipal Act with their industrial and commercial undertakings are dominant and the rural areas governed by the Bengal Local Self-Government Act and the Bengal Village Self-Government Act are being administered altogether differently. The city and the country instead of being in close sympathy as formerly, antagonize each other; and the city, because of its superior strength, is making still greater gains. Our educational history possesses similar characteristics. The country school has shared the fate of its environment. Once the equal of the city school, it has been left far behind. It is not difficult to discover the reason for this situation—it lies to a considerable degree in the character and in the environment of the country people. As a class conservative

and thrifty, and without a proper appreciation of the dignity and worth of their own vocation, of country life, and of the value of education for promotion of their well-being, they have refused to grant the necessary support and other benefits for the betterment of their schols. A very large proportion of our countrymen do not want to pay fees for the education of their children even in secondary schools, namely, high schools, high madrasahs, middle schools and junior madrasahs. The secondary schools are, therefore, managed by adopting dubious means regarding financial adjustments of income and expenditure.

Until within the past twenty years education was generally considered as a process of developing the individual; the function of the school under that regime was largely to give the pupil certain definite knowledge which led chiefly to scholarly or professional pursuits, and to co-operate with other institutions in society in developing sound moral principles. In the past few years the social elements in education have been gaining recognition. The individual is coming to be regarded as a social being; every child is to be prepared in the fullest manner for life and for service. Education is becoming democratic in fact as well as in name. As this tendency persists the school will become more closely identified with the community life. Putting the same in another way it may be said, the traditional school is being socialized. This *socialised school* will deal with the life of each child in a manner which will best promote his own present and future good, as well as the present and future good of other persons in his own and other communities, whether that good be industrial or aesthetic, physical or moral, intellectual or political. The curriculum will be made up of elements in the social life with which the child comes in daily contact; and the aim in the conduct of the school will be to bring about natural reactions between the two factors in the educational process, the child and his environment, thereby promoting in each child the highest intelligence and efficiency, and the greatest capacity for service.

Let us now direct our attention to the question, what part may the *socialised school* be expected to take in the promotion of better conditions in rural life, for the purpose of indicating the definite ways in which the rural school should be improved. In the *first* place, it is to be said that socialized rural school should be only one of several institutions which are to participate in the promotion of rural life. In the *second* place the primary function of the school, should be, as in the past, the education of the children. This education should prepare them for the living of

an intelligent, appreciative, efficient, and happy life. The curriculum should eventually be made over and adopted to each local environment; some of the traditional ideas as to the conduct of the schools must give way to plans which will break down the barrier between school and life. In the *third* place, the socialized school should promote such organisation among the pupils as will prepare them for co-operative action in adult life. In the *fourth* place, the socialized school should be so conducted as to make it a means of bringing the parents into closer relations through their common interest in the children. In the *fifth* place, the use of the school house as a meeting-place for organisations not connected with the school (e.g., benevolent activities under the Rural Development Scheme for which Government of India are giving special grants) should be encouraged. And finally, in the *sixth* place, the teacher of the socialized school should be a social worker. In a personal capacity he should participate in all those movements which make for social betterment. His co-operation with the village self-governing bodies (like the Union Boards), co-operative societies, health associations and various other uplift organisations will be greatly appreciated by all concerned in the rural welfare work.

Two points in connection with the education of children in rural areas deserve special consideration because they deal with that work which, in the promotion of rural life, is the special province of the school.

(a) The vacant mind of the country boy or girl must be transformed into the active mind, occupied with the myriad significant activities of nature in plant and animal growth. The habits of close observation, and of careful comparison and analysis should be inculcated and such an interest developed in the problems involved as will offset the superior attractions of the cities. Ways to satisfy the aesthetic *instincts* by discovering the countless ever-changing beauties of nature should also be found. In short, the socialized school should reveal to the child the country life in all its richness, and, in so doing, create a genuine love for the open country.

(b) Education in agriculture in the rural schools should not be limited to the economic end, but should also minister to the intellectual, aesthetic, and social life. In the popular mind, and possibly also in the cases of some agriculturists, agricultural education and development have been largely associated with economic ends. Those who want their children to give up agriculture as a vocation of life do not want that agriculture

should form a part of the curriculum of the school. They despise manual labour and do not want that this should be taught in schools. Certainly they are wrong. But at the same time it must be said that commercialization of agriculture to the exclusion of other aspects must be checked, and the school as one of the conservators of the nation, should be so conducted as to counteract this tendency rather than to promote it. *Secondary Schools are not all going to be vocational schools in Bengal.*

What then to do with the boys is a question of great interest and greater perplexity to the educators. This is not a problem of the earlier years of boy life. After they enter their teens there is a marked change. They grow restless, and soon a great leakage from school begins which is the despair of the teachers. The average home feels the movement quite as seriously. The boys are not becoming what their parents want them to be. The street becomes increasingly attractive, the boy falls under the fascination of the crowd or the gang, and finds the larger proportion of his interests and friends outside the family. This is a regular stage in his psychological development and has in it nothing unusual nor strange; but it is also the time when undesirable associates and bad influences are most to be dreaded, and when the question as to what shall be done for the boy becomes pressing. The boys themselves suggest the answer. As they approach the twelfth year a longing seizes them to achieve physical prowess, to build, to camp out, to hunt, fish, roam, to get together and to form clubs and societies of all kinds. We teachers are apt to throw cold water on their activities in these directions and that is why we fail to make the school a centre of activities for the boys.

If we wish to retain the interest of the boys we must begin our work with them as early as ten. From ten to sixteen is the period when habits are formed. Politeness, moral conduct, and even religious observance may now be made so much a matter of course that they will never seem foreign. The possibilities to pre-empt the young soul for goodness are incalculable. Upon the very molecules themselves an implacable and unerasable register is being made. To wait until this formative period is well-nigh over before bringing the best influences to bear may easily be too late; the time to begin is at the beginning. (a) The natural form of organisation with which to work with boys is the club. The club spirit is strong in them; it develops loyalty, sympathy, good fellowship, discipline, character; it is indicated as the line of least resistance in dealing with boys, and effects the best results. The activities of the club should be such as will

afford an outlet for the boys' physical energy. Gymnasium exercises, athletic sports, any kind of manual training, out-door life, camping, walking, riding, swimming, sailing will appeal to nearly all boys of ten to fourteen and to many who are older.

(b) Tools have a great fascination for a boy, and one of the most attractive features of a school is the opportunity to use them at a bench. The manual training class gives the boy more than the gymnasium; it appeals to more instincts. The trained hand opens the door of shop and laboratory. It is not only the chief means of will training, but it leads to the discovery of adaptabilities of life, it opens the way to specific usefulness, it solves the question of *life tendencies*, it develops the expressing man, and the interest it excites, leaves no room for crime, self-indulgence or mischief. Woodworking is perhaps the most interesting of the handicrafts for boys. A room can be equipped at moderate expense with rough benches and a few of the ordinary tools. An intelligent village carpenter can easily teach a class of dozen boys, showing them how to make many articles for their own pleasure and for home use. The members of such a class not only get much practical information but also acquire patience, perseverance, self-control, critical taste, and a trained eye and hand, which in themselves are an education of high value.

(c) From ten to fourteen, boys are also interested in making collections of postage stamps, chocolate pictures, buttons, marbles, stones, etc. This passion may easily be given a more profitable direction. Boys will collect butterflies, insects, minerals and flowers with as much enthusiasm as they do buttons and pictures. Under a good leader, the work of the secondary schools in Nature Study can be admirably supplemented by the boys' club of the type mentioned before. In the carpenter's shop, if there is one, the boys can make the butterfly nets, insect cases, flower presses, shelves for minerals, and other things which may be needed, and this will add much to the pleasure of collecting. Suburban and country school clubs can gradually form a museum of local specimens of all kinds, which will be interesting and valuable in more ways than one. There will be excursions and tramps into the country when the leader will teach the boys how to observe nature, and they will find endless variety in studying the habits of birds, fishes, and animals. During the rainy season when the boys cannot go out, they can mount and name the specimens they have gathered, and if these can find a place on the walls of their meeting-room they will be a constant incentive to more and better work in the future. By all means the teachers should make the most of the collecting instinct of the boys.

After fourteen, however, a considerable number will lose interest in these pursuits and will be ready to join literary and debating societies. Some will like music, more will find pleasure in dramatics. At this period, literary music and dramatic departments will be of service. What a pity that music is almost completely neglected in boys' schools in Bengal. Combination entertainments will bring out the special talents of the members and the regular meetings will make them acquainted with some of the higher and broader interests of life. This sequence of clubs is most desirable, as otherwise hold on the boys may be lost at the most critical period. Then after such a training, it ought to be possible to interest them in turn in some kind of useful service, either in the school or in the community, or in both. This watchfulness and care calls for infinite patience, tact and perseverance, but experience proves it is well worth while.

For the older boys facts relating to geographic situation may seem superfluous and obvious, but many a problem depends for its solution upon a proper knowledge of location, environment and proximity to neighbouring communities and resources. The following types of questions might be answered with profit to both teachers and senior students:—

(1) Is the town or village located upon upland or lowland or both and to what extent? (2) Is there any water front available and what is its extent? (3) Is the water front navigable and if not why? (4) Has the water front ever been used for navigation and how long ago? (5) What is the total area of the community and how much is unoccupied land? (6) How much of the unoccupied land is fit for use and how much is capable of being rendered useful and in what way? (7) How far from any large populational centre is the community? (8) Is the surrounding land, within a radius of ten miles, agricultural, manufacturing, wooded or fallow land, and how much of each? (9) What is the general climatic condition and what are its known effects upon health? (10) What are the causes of deaths by nationality or race or caste, by age and sex, and which of them are preventable?

In order to rouse the civic consciousness and a spirit of social service among older boys it may be worth while discussing with them questions of the following types:—

(i) Is the city or village government inefficient owing to antiquated methods? (ii) Is there any particular local social problem of special interest to the people? (iii) Is the city or village government based upon different Acts of the Legislature or is there only a general Act that applies to all localities of the same class in the province? (iv) Have any changes taken place

in the Act during the last twenty-five years? (v) Is it a farming, manufacturing or commercial community and to what extent is each prevalent? (vi) What qualifications entitle a person to a vote? (vii) How often are the local elections held, and what officers are elected? (viii) What powers do the Boards and officers have? (ix) To what extent is the city or village government responsible for the spread of education, specially primary education? (x) What steps to improve the health and morals of the community as a whole have the Boards taken within the last ten years? (xi) What local problems have arisen within the last few years which have not been tackled on account of the limited powers of the Boards? (xii) What is the tax-rate; how is it determined and what are the laws concerning assessments? What is the borrowing limit and how much is the indebtedness of the Board? (xiii) What are the local suffrage laws; and is buying and selling of votes a general practice, and if so, what parties and what interests practise this method? Is the community as a whole eager to put a stop to such practices? (xiv) What is the number of labourers employed in each industry and in each establishment in any local area? (xv) Are all the industries in the hands of local people or are some of them in the hands of outsiders who have come to seek a labour-market? (xvi) Do the different industries find a satisfactory labour supply from the local area or is labour imported from other localities? (xvii) How many of the labourers are men, women or children? (xviii) What is the proportion of skilled and unskilled labourers of each sex? (xix) What is the maximum and minimum wage in each for men, women and children in skilled and unskilled trades? (xx) Is child labour prohibited; if so, what is the age limit? (xxi) Are there technical and industrial schools for them? (xxii) Do the industries employ steadily throughout the year the same number of labourers; and what industries have variations in the number of their employees? (xxiii) Is the work of the industries during the slack seasons such as to make it possible for labourers to go from one industry to another, and to what extent is this possible? (xxiv) Can labourers be asked to spend such time in weaving cloths required by them?

Similar questions should be framed regarding health, housing, industrial sanitation, school sanitation, food supply, recreations, amusements, administration of schools and libraries, welfare agencies, poverty, juvenile delinquency, adult crime, etc., of any particular locality. When the teacher and students will attempt to answer these questions they will come face to face with real problems of the society which need immediate solution.

The rules framed by Government under the Government of India Act of 1935, have enfranchised all Matriculates when they attain 21 years of age. A day may soon come when the middle school passed men (*i.e.*, non-Matriculates in high schools completing the course at the end of class VI) will on attaining majority get the voting rights. The change is very important not only from political but also from educational point of view. We, therefore, need more life in our schools; the old atmosphere that still envelops them and estranges them from home and life must be got rid of. The fact is, our schools are to-day the direct descendants, in spirit and in truth, of the old monastic schools, and in many respects their attitude towards life has been unaltered by the intervening centuries. They deliberately excluded life and introduced the atmosphere of the cloister. Asceticism was their ideal. A supreme contempt for all externalities was their one constant attitude. Those people who even now advocate that the atmosphere of the 'good old days' should prevail, are courting disaster. It is necessary to avoid the disastrous tendency that has always shown itself in the school room—the tendency to sever all connections between studies in the school room and life outside. School life should lead up to the life of the world outside, not by adopting a utilitarian curriculum for the school, nor even one tintured by doses of cottage gardening and manual training. The change needed is a deeper one than that; it is more than a change of curriculum that is needed; it is a change of atmosphere. Education is the unfolding of the disposition of the pupil; it is the creation of attitudes so to speak. Thus a scientific training is valuable, not because of the knowledge accumulated, but because of the attitude engendered. It is culture, not knowledge simply, that is the ultimate aim of education; that is to say, education is a process of assimilation, not accumulation. It is the attitude of the school towards life that needs to be revolutionised, not the curriculum alone. That is what we mean by saying that it is a change of atmosphere that is needed. The revolution of the attitude in the school will engender a change in the child. Nature and naturalness will take the place of the formal studies and formalism.

As the years roll on the detachment of the school from the world outside will, we think, disappear so that mutual suspicion between teacher and parent will give place, let us hope, to a better understanding of each other's duties and a consequent co-operation in the duty of child training. The truth will be recognised that it is only by harmonious working of both parent and teacher that the best result can be obtained. The recognition of the high

nature of their task will command mutual respect and sympathy. For what is this task upon which they are engaged? It is the training of citizens—strong and sturdy men—men of high physical and moral stamina. The existence of the State depends upon a continuous supply of trained citizens—of men and women prepared for the burden of modern civilisation and at the same time ready to carry on the great work which the race, guided by some instinctive consciousness, is doing. Man climbs instinctively; he cannot see the end; yet though the end is hid it is well to know what are those qualities necessary to the good citizen, and what the foundation is upon which the continuous prosperity of a nation is reared. Its foundation is laid in pure domestic life, in commercial integrity, in a high standard of moral worth and of public spirit in simple habits, in courage, uprightness, and a certain soundness and moderation of judgment which springs quite as much from character as from intellect. This foundation can be laid by the teachers of secondary schools in Bengal, and the future welfare of the province rests with them. May they rise equal to the task by mutual deliberations and sharing of responsibilities.

PROBLEMS OF EDUCATION IN MIDDLE CLASS HOMES

BY

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Introduction.

The influence that the social unit called home exercises on all its members and particularly on children has been universally recognized. The size of a family, its social and economic status, the psychological relationship existing between the parents, and the cultural outlook of the parents, all these social and emotional factors mould and shape the attitudes of children towards the various members of the family, the world at large and the most important of all, towards life itself. Important as the influence of the family is upon children it is surprising to find that no systematic or scientific attempt has been made in this country, so far, to understand the nature and the details of this influence. Consequently our knowledge of the educational influence of the family is not only hazy and inadequate but is limited to generalities which may not stand the test of scientific scrutiny.

The reasons for our ignorance, on the status of family as an educational institution, are not far to seek. Scientific investigations are easily conducted in spheres where man's own emotions are not disturbed. Hence it is quite easy to study the nature of lifeless things and lower animals. When scientific method is brought to the scrutiny of those institutions which have been created by human emotions and impulses, our observations are easily prejudiced by our emotions; and that cool precise and incisive analysis, which is possible in the study of infra-human spheres, is no longer possible in the case of human nature and human institutions. The established and comfortable attitudes of mind are unsettled by these studies. No wonder then that the sciences of psychology and sociology have been slow to develop that body of 'laws' and 'universal principles' which are possible in physical sciences. The most private and personal emotions of men and women are satisfied by our homes. Hence any attempt at evaluating family is considered to be an encroachment on the private lives of those constituting a family. Little wonder it is then that our knowledge of the educational value of home has not

gone beyond pleasing generalizations and platitudes; while a thick veil of ignorance hides the actual working of this educational agency of fundamental importance.

Fortunately there are signs that this ignorance is beginning to wear off. In recent years there has been plenty of talk of 'co-operation between Home and School,' 'Parents' Education' and 'Maladjusted parents.' Though there has been more of zeal than substance in all this, but the beginning of this zeal betokens that serious research into the home education will eventually be taken up. With the recent threats to the existence of the middle class in our country interest in the study of the history and future of this class is increasing. As the middle class constitutes the intellectual back-bone of the country any difficulties faced by this class leads to an interest in the general social problems of the country as a whole.

In what follows an attempt will be made to formulate the difficulties and new problems that the educated class of this country is facing in giving adequate home education to their children. Each of these problems needs a careful scientific treatment which it is hoped will receive the attention of those interested in educational research. In order to appreciate the difficulties of pre-school education in the modern middle class home, it seems relevant to depict the state of affairs in the families uninfluenced by the modern outlook.

The Indian Home in the Past.

In order to realize the educational influence of the traditional Indian Home on the children a few comments on the structure of the traditional home must be made. Joint-family system has been in vogue in India for generations. According to this system all the sons of a father with their wives and children lived under the same roof, worked in the same fields or elsewhere and submitted their earnings to the father for the common weal of the family. The individual members had to keep the welfare of the family in view and were called upon to make frequent sacrifices of their personal pursuits for the sake of the progress and welfare of the family. There were no separate schools for the children to go to. If there were any these taught only the three R's. The main and dominating influence was that of the mighty home.

Let us go into the details of this influence a little more. The children lived with their parents in their homes as also on their place of work. The children watched their elders in their

work as tillers of land, as craftsmen or as labourers. They often helped their parents in the minor operations of their work. Since most of the things of daily use such as butter, jam were manufactured at home, the children were able to observe and participate in these activities. The result was that children in such a home though living and participating in its activities were being educated in, a more or less, an all inclusive way for the life that awaited them when they were to become mature. The presence of older people in the family such as grand-father or grand-uncle served as a model for the children to copy. They made these personalities their ideals which they strove to become.

Recent Changes in Indian Homes.

But all this is changing and has completely changed in more advanced homes. With the growth of urbanization the joint-family system has been weakened. The son who is living in a town or city has now been uprooted from his rural surroundings where he lived as a part of the big family. Now he lives in a city more or less emancipated from the control that the family exercised over him. A new sense of individuality has dawned upon him. He has attained a new consciousness which is the result of his freedom. His family too has become small in size. In the joint-family system many husbands and wives with their children lived under one roof and were controlled by the same outlook. The size of the urban family too has decreased. It consists of a couple and their offspring. But what has been the educational value of the new home? In the old family the child participated in the actual work of life that awaited him, by watching and helping his father at work. In the urban family the father works in an office or a workshop where his son can neither watch the father at work nor can he help him. *Thus in the new homes that old vital educational agency-learning by participating in life has disappeared.* Again in the old family all the articles of every day were manufactured at home which was of great value to the children's information. In the modern home most of the things of every-day use such as milk, butter, sugar and cloth are manufactured in distant places. The child who uses them does not learn as to how these things are made. All that he observes is that all the things of life are got by spending. No wonder then money is required by most children as an important solution to the most of the difficulties of life. In the modern home the old personalities are disappear-

ing. As was said above, these old personalities had a great influence on children since they provided a model which the children could copy. After the tumult of the youthful impulses old men usually come to attain maturity of intellect and serenity of mind which makes them desirable models to imitate. In the new homes these older personalities are lacking, and consequently there is something missing in the new homes which had a great value for children. Thus we find that the modern home has become inefficient as an educational agency.

Difficulties of Rearing Children.

With the changes that have recently come in our social life, the proper education of children has become quite difficult for the middle class homes. A brief mention of these difficulties seems to be quite relevant. These difficulties may be summed up under four headings:

(1) *Cultural difficulties.* With the dawn of individualism, in the modern days, the time-honoured ideology of self-sacrifice is becoming out of vogue. Marriages are performed and family is set up, not so much for the continuation of race or propagation of the family traditions, as for personal happiness and personal ends. If children are born as a result of marriage, they are not the primary aim of marriage. They are regarded as a nuisance and are tolerated because the older sentiments have not disappeared altogether.

(2) *Economic difficulties.* With the growth of individualism and democracy all people think that, through hard and patient labour, even the lowest of the human beings can attain to the highest status. Though the standard of living of the middle class has been raised yet those who are slightly below their neighbours in attaining the comforts of life strain themselves to be equal to their immediate neighbour. 'If my colleague owns a car why not I' this mentality of competition is a prominent feature of our life these days. Everybody tries to live slightly beyond his means. Thus in spite of the growing richness there is mental strain, of lack of something in life. Again, the children in the olden days were economically valuable because they helped their parents in their work. In the present time sentiments against child labour have become quite marked. Hence it is unthinkable for the educated middle class people to employ children in some sort of work which may supplement the family income. On the other hand, there has been a marked tendency to increase the period of child's education. Thus the children have

become a liability rather than an asset in modern families. Again, the increased demands of children for more goods worries the average parent.

(3) *Accommodation difficulties.* In the villages there is plenty of space inviting children for play and other spontaneous recreational activities. In the city homes there is very limited accommodation for the family. Consequently there are no opportunities for children to give free expression to their play-activities. This has brought a very serious limitation to the healthy growth of children. Consequently the health problems of city children have become a great problem of city life. The town-planning in India, with very few exceptions, has failed to take into account the children's need of recreation parks and other facilities for play. The health of the nation has undoubtedly suffered on that score. This may not be a serious problem for the upper-middle class who can afford to live in suburbs but the lower-middle class who constitute the major population of a city feel the lack of such facilities.

(4) *New Concepts.* The new concepts popularized by psycho-analysis, anthropology and biology have increased the parent's difficulty in rearing children in no small measure. A conscientious parent feels quite confused as he is unable to find clear-cut rules for child guidance in the modern literature on the subject. The difficulties of child rearing in our days have been excellently summarized in the following passage taken from an article published in a recent issue of a journal:—"In the intellectual and financial middle class motherhood is a sentence to years of drudgery, confinement and responsibility. Loss of sleep incident to child care and money worries make up motherhood difficult and disappointing when the family income is limited. This condition reacts on children. The decrease in skill in pursuits followed previous to maternity, the abandonment of activities shared by husband and wife and the incessant companionship of children substituted for former adult interests make the frustration of young mothers a problem of equal importance with the much discussed neurosis of thwarted spinsters."

The School.

Thus the educational functions of the home have dropped one by one. Meanwhile another educational agency has achieved quite a marked popularity; I mean the school. Schools originated primarily to train people to take up work in the government office, commercial offices and other new works started, in this

country, through contact with the west. But schools grew much more in number than was necessary for the above-mentioned purpose. These schools have spread literacy undoubtedly. But have they been able to take up those educational functions which the traditional home had performed? The answer is in the negative. There has been a marked emphasis in our education on literary and cultural aspects with utter disregards for the type of life that the pupil might face after the schooling is over.

The Way Out.

Education is the usual treatment suggested for all the social problems. Many think that suggesting education as the panacea for all ills is to evade the real issue. There is much truth in this statement and yet if education does not go the whole way in solving our problems it at least helps in certain respects.

Parents' Education.

The one remedy suggested for re-establishing the educational values in the middle class home is by educating parents in their relationship with children. What was done unconsciously through the force of instinct may be done with intelligence and deliberation. The few experiments in parents' education made in Europe and America in the last decade encourage us to try the experiment in this country. Broadly speaking the object of the parents' education is to help parents to use wisely the opportunity provided to them in giving good start to the child in early years.

Community and Child Education.

The difficulties of child rearing mentioned above cannot be faced by individual parents. Some of these responsibilities if borne by a number of small families combined would solve the problems. It may be difficult for a single family to buy all the nursery equipment. On the other hand if the nursery training equipment is bought by ten or fifteen neighbours together the economic difficulty is simplified. This type of corporative education presupposes that our families are able to work on cooperative basis—a big supposition indeed to make in this age of competition. Here too education in cooperative work is needed.

Enlargement of the Functions of Education.

Along with this, we need to enlarge the functions of school education. Education in schools should not be a preparation for life but it should be participation in life. Already there is

reaction in other countries against the traditional education. The 'Gary System' of America and the 'New Russian School System' show which way the wind of opinion blows in education.

Responsibility of the State.

In educating children the family is helping the State. It is doing part of the work that the State ought to handle. So far very little has been done by the State to improve and promote the educational function of the home. All the difficulties of home education ultimately bring some responsibility on the State. In order to encourage use of hygienic food for children the State should make arrangements for the sale of baby food at a cheap rate. Similarly special facilities for medical inspection of children and medical treatment of diseased children should be granted by the State. Special arrangements for play and recreational needs of children are very necessary. So far as I know very few municipalities and corporations in India have done anything in this direction.

In Conclusion.

If the child's training is to be realistic cultural integrity should be the essential feature of the child's education. That integrity was given in the homes of the past age. The work of education has been divided among many agencies in our time. In some way or the other all these agencies have to be integrated. Hence home should be linked with the school and the State. This task seems to be difficult and hopeless to many. But it is very often forgotten that all new social changes require new adjustment by the individual. Parents' education must be the new programme in our education.

A BALANCED CURRICULUM IN MUSIC EDUCATION

BY

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The primary and controlling aim of a program of music education in the school is effectively and intelligently to promote musical amateurism. We wish so to educate young people that when they leave us they will have both the desire and the ability to find a continuing place in their lives for musical activities of the highest possible level. On this our work should centre. By this it should be judged. Here is the fulcrum about which to organize a balanced curriculum in music education.

How then may our aim be achieved? What must we try to do? What must we avoid? What will be the nature of a curriculum which will focus on musical amateurism, and strike an effective balance in promoting it?

The essential content of such a curriculum will not consist of notational problems, or the stuff of musical theory and history, or mastery of units of technique, or of any combination of such elements. If we think and work in any such terms as these we are off to a wrong start from which we shall hardly recover. Musical activities, musical projects, are the essential stuff of our balanced curriculum—musical activities varied and diversified, yet all consciously and scrupulously pointed towards a single end. One learns to enjoy and use music simply by using and experiencing it in all possible ways. This is what we must offer our young people. We must set up a music program which offers them opportunities for musical projects organized under competent educational direction.

Now in general it is possible to do three kinds of things with music—to experience and use it in three ways. One can listen to it. One can perform it with voice or instrument. And one can compose or create it. So our music curriculum must find a place for three types of musical projects—listening projects, performance projects, and creative projects. Let us briefly consider their values and proper management.

First, as to listening. There is a notion, never perhaps clearly expressed, yet widely held and very influential, that music study means chiefly or solely learning to perform music. And

many programs of music education are built about the idea. Yet not much reflection is needed to show that it is false. One would say at once that a person who has never heard the great musical masterpieces lacks an experience of obvious cultural value. But this is not quite the point I wish to press. My point is that wide, directed experience in listening, an aroused desire for listening, and an ability to listen well, is a most important item in the equipment of the musical amateur. What are we trying to teach our young people? Surely not just the names of the notes, or the intricacies of the score, or the technique of some instrument. Surely we are not just trying to develop competent members for our high school bands and orchestras and choruses. If we limit ourselves to aims such as these, shall we not properly stand condemned of a most perverse narrowness? These young people live in a world rich with superb musical opportunities, rich with opportunities for most compelling happiness in and through music. Is it not part of our job as music educators to bring such opportunities home to them? Should not the influence of our work reveal itself both now and later in their interest in concert attendance, in the kind of radio programs they select, in the kind of phonograph records they buy, in the value they set upon and the pleasure they find in hearing informal musical performances? Is not all this a proper part of their personal adjustment to the problems of life in modern society? Any person who is dead to existing opportunities to listen to and enjoy music is poorly equipped as a musical amateur even though he has considerable performance skill. And what is more, he lacks a not unimportant item of equipment as a human being.

So our balanced music curriculum will make considerable provision for listening experiences, and will continue such provision all the way from the kindergarten to the twelfth class. But the listening project will not be set up as a passive exposure, in the vague hope that some unspecified cultural values will accrue. It will always be a definite attempt to inculcate and promote listening to music as an attractive life activity. Listening will not be confined to hearing phonograph records. The human element will be persistently introduced. The performance of other pupils and of the teacher will be utilized. The use of the home radio, concert attendance, and the formation of informal musical groups, will be persuasively advocated. By the time of high school graduation the pupil should not only have heard a good sampling of the world's great music, he should also have gained the attitude of seeking for the opportunities afforded by society for continuing his musical experience and enjoyment.

Second, consider performance. It is a truism that one cannot gain an adequate grasp of any art without practising it. Yet some music educators seriously doubt whether many young people can, under the conditions of their school life, achieve enough skill in musical performance to be of permanent value to them. Here we find both an important truth and a significant error. If we are thinking of performance on the concert level, it is quite true. But our aim is not to turn boys and girls into weak replicas of concert stars. After all, the normal social outlet for the performing amateur is not the concert platform. It is in the home, in the circle of friends, in the informal group. And if we seriously set about the job of equipping young people to make music with voice and instrument on such occasions as these, we shall find it altogether more feasible. It will involve not so much a lowering as a humanizing of standards—an extensive repertoire of playable material rather than a few painfully polished “pieces” for instance. We shall find it particularly worth while to promote ensemble performance; and for this the school situation obviously lends itself in many ways. Here is something that most certainly can be done, particularly as we know how to teach the musical techniques far more quickly than heretofore. And it is eminently worth while. The ability to perform music individually or with others up to an acceptable level is one of the most socially repaying of all avocational activities.

So what we should have is a well-knit scheme of performance projects stemming out of the elementary school singing. We should have small instrumental and vocal ensembles. We should have instrumental class work. School credit for private lessons should be arranged. Solo opportunities, perhaps in connection with listening experiences, should be arranged as copiously as possible. And the large ensemble groups of the senior high school should crown the program. The quality of work done by these groups is a matter of high importance. Even though we have to move slowly and tolerate inferior performance, we should never be content with it or cease working for something better. The reason is not that we wish for the publicity values of such organizations. The reason is an educational one. A fine senior high school orchestra or choir, properly built into the program as a whole, can set standards all along the line, right down to the kindergarten. This is what we want it for. Such, I believe, is the clear emphasis in the matter of performance indicated by our controlling aim of the promotion of musical amateurism.

Thirdly, consider composition, that is, the creative project.

Of course, we entertain no idea of raising a large crop of composers, any more than language teachers expect to produce many novelists and poets. But certain things we can do by means of the creative project. First of all, directed experience and encouragement in the creation of music can deeply affect one's whole attitude towards the art. When a person has cooperated in evolving melodic settings for poems, or in writing little pieces for instrumental performance, and has then heard his music rendered, he is helped to regard music itself not as a series of troublesome note problems or technical obstacles, but as a natural and normal agency for expression. Artistically his creative work may be worth little; and still it may be very valuable educationally. The influence it has on him may readily show itself in more intelligent listening and more sensitive performance. Above all; the creative project can arouse an enthusiasm for the use of music which tends to persist long after school days are over. Then secondly, if we do the right and possible thing, we can reveal to young people the interesting truth that to compose music of some value is by no means so recondite a task as might be supposed. Help them to set about it the right way, and many of them will compose with some appreciable measure of success.

So the balanced music curriculum will embody creative projects as an essential element. They will be set up for the primary purpose of developing a normal, healthy attitude towards music, as well as for the many valuable incidental learnings they involve, rather than for the sake of tangible results in the way of a product. In the elementary grades pupils will be encouraged and helped to compose music to be sung by the class and played on toy instrumental ensembles. Later on something more in the way of formal composition can be undertaken. Audience situations will be provided. Encouragement for unusual talent can readily be furnished. Above all, we shall avoid the grammatical study of musical theory, and even in our special elective courses in harmony our emphasis will always be upon normal expressive musical activities, with definite social outlets. Indeed the explicit and formal teaching of theory can be reduced to a minimum, and its essential elements acquired in connection with the whole scheme of working musical projects.

Such in briefest outline are the chief features of a balanced music curriculum aiming at musical amateurism. But to point up the picture somewhat, let us consider certain prevalent threats to the integrity and effectiveness of such a program. A number of practices have grown up in our schools which seriously impair

the value of the work in music. And yet we can avoid them easily enough once they are called to our attention.

1. First, we must avoid the use of inferior and worthless music. Such a warning should be needless, for surely one cannot expect any worthy educational results from the use of trash. But unfortunately it is not. Assembly singing, and programs brought in by visiting so-called artists are often on a level deplorably and quite needlessly low. The use of fine music need in no way impair enjoyment or damp a get-together spirit. Genuine appeal and quality does not mean "high-brow-ism." And one can hardly doubt that its persistent use on all occasions tends to carry over into life.

But by all odds the worst offences against the canon of quality are found in the program of elementary school singing. Much of the material used is entirely destitute of interest and appeal. The excuse made for it is that it serves the purpose of drill on the notation, and that it trains the mind. As to this last notion—still I lament to say upheld by some music educators—no comment is needed. But a word should be said in regard to drill. The living values of our program are precisely not those gained by drill. Instead of a drill device, the song should be a musical project—something the child might enjoy learning in school and might wish to sing out of school. Instead of being a means for learning something else—the notation—the song should carry its own values as a musical experience. Here is the clear implication of the whole point of view I am presenting. And this obviously requires the use of beautiful and appealing materials. When this is not done, whatever the excuse, the whole program fails as an agency for promoting a normal amateurism.

2. Second, we must avoid an excessive emphasis on reading the score. Reading is chiefly a tool skill, and when we allow its acquisition to monopolize practically the entire time from the second to the sixth grade, it is obvious that our program is completely out of balance. Music educators tend to over-emphasize reading largely because it is definite and tangible and yields measurable results.

Now I freely admit that the ability to read is a very valuable item in the equipment of the amateur. But I insist that we often pay a preposterously needless price for it, and sacrifice many things even more essential—listening, and creative work, for instance. Our problem, then, is not to get rid of music reading in the schools, but to teach it more economically. And this can most certainly be done. Our two guides for accomplishing it are to *incidentalize* and to *postpone*. From the second grade on the

children may have the score before them in many musical activities—listening and rote singing, for instance. But we should spend very little time on it, and it should not be formally developed. Without sacrificing anything at all in the way of final achievement the formal study of the score can be postponed to the fourth or fifth grade. At that age the child can learn it much faster than in the second grade, partly because he is older, and partly because he has more of a musical background—a background containing some instrumental and creative experience, which are peculiarly helpful in mastering the score. By such incidental treatment and postponement we can still teach reading, and yet leave plenty of time in the lower grades for a rounded scheme of musical projects.

3. Third, we must avoid starving our program for time. Half an hour a week for music in the high school, for instance, is a travesty. It means at once that only one small aspect of a complete program can be attempted, and even that none too well. We ask for time not to polish and groom a group of virtuose, but to give music a chance with the boys and girls. Surely it is obvious that a broad amateur musical equipment is an asset of genuine social and practical value. Surely too, if the music program is worth anything at all, it is worth doing well. It should have its fair chance. We claim urgently that music should be granted as liberal a time allotment as any major subject taught in the school.

4. Fourth, we must avoid exploiting the music program for publicity. No curricular activity has richer possibilities for school publicity than music. And up to a point this is healthy and legitimate. By all means our work should have community outlets and contacts. But too often we find what is nothing less than a vicious and harmful perversion of such values. The high school band and orchestra are often permitted to obliterate everything else, and the entire program is judged by its obvious and showy results. The case is precisely on all fours with football, which has drawn so much recent criticism. Now we want good bands and orchestras—but not at a sacrifice of the musical and educational interests of young people. We do not want to develop eighteen-year-old semi-professionals, narrowly trained, who will find no use for their abilities when they graduate. We want to develop musical amateurs, with the richest experience we can give them, in whose lives music in all its varied aspects will play a continuing part.

The music program, as I see it, is one of the great opportunities now before schools. It is a chance to do a real job of

education—to render a real service to youth. Its patterns are not yet set, its aims not yet crystallized. So here is a chance to apply educational principles in which many of us entirely concur, but which are difficult to put into operation on a general scale. To miss such an opportunity would be worse than a misfortune. It would be tragic. If we sanely plan our music curriculum for the obvious human end of the promotion of the enjoyment and use of music—of musical amateurism—we shall find that it justifies itself as every educational scheme ultimately must, in the lives of boys and girls and men and women.

A PLAN FOR COMPULSORY MASS EDUCATION

BY

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The importance of Primary Education was first recognised by the British Government in 1854, when the system of Grants-in-aid to Vernacular Schools was recognised. Five years later the Government decided to levy a special land-tax to be earmarked for Vernacular education. Scant attention was, however, paid towards Mass Education and the people were abandoned to themselves. Though Secondary Education received encouragement from time to time, Primary Instruction continued to be sadly neglected, notwithstanding occasional recommendations of several Education Commissions followed by formal Government endorsements.

The cause of Mass Education received a fresh impetus in 1911, when Mr. Gokhale introduced his famous Elementary Education Bill at the Imperial Legislative Council. Primary Education Acts have since been passed by several legislatures both in British India and Indian India with a view to spreading Mass Education in the country, though some of the Indian States were far ahead in this respect and in one of the reports of the Assistant Commissioner of Education, Baroda State, we find the following:

‘The year 1906-07 was another epoch-making year in as much as it was in that year that Primary Education was made Free and Compulsory throughout the State.’

The very permissive nature of the Primary Education Acts has brought about a definite set-back to universal compulsion and greatly handicapped the spread of Mass Education. Financial and administrative difficulties are said to have made the compulsory enforcement of primary education impossible. An enormous national evil in the shape of popular ignorance has thus been allowed to prevail for more than a century and a half. We do not know how long the so-called financial stringency will continue and the children of the soil allowed to vegetate without even the benefits of an Elementary Instruction which is their Birth-Right. We speak of ‘Free Primary Education.’ It is an error, I should

think, to call this Gratis Education: the working classes pay for it not only in their extensive contribution to the indirect taxation but in sustaining by their labour the entire physical fabric of the community and Rural Education is but a Legitimate Return. An intellectual darkness broods over our land and universal ignorance prevails.

With the grant of Constitutional Rights in a Federal India there is likely to be a great increase of popular power and extension of popular influence and the electorate must consequently possess a commensurate directing knowledge and controlling virtue if the functions of citizenship are to be adequately discharged. We fail to understand how this can be achieved without a rapid popular enlightenment which can only be secured by the immediate introduction of Universal Compulsory and Free Primary Education. The permissive nature of the Compulsory Acts in the different provinces and States should be changed into an obligatory nature and the Government should lay down the duty of submission of schemes on Local Bodies so as to apply Universal Compulsion, under penalties of supercession, within a certain definite period. Make-shift arrangements will certainly fail to produce the desired result. Necessary legislation has to be enacted to meet the incidental difficulties that may crop up and it is the primary duty of a responsible Government to find money for this important Nation-Building Department, for while transferring the responsibility on the shoulders of the local bodies adequate provision has to be made so that they may be financially comfortable.

While criticising the government for its apathy to the problem of educating the masses we cannot pass on without referring to the appallingly amazing indifference of the public to this cause. In fact the necessity of Elementary Education did not seriously go home to the people so long. Without minimising the cause of higher education, even though it affects only a handful of students, I have no hesitation in saying that very little has been done by our people to enlighten the Teeming Millions. While higher education has been immensely benefited by the windfalls from a Palit, a Ghose, a Chettiar and a Luxmi Narayan, no munificence well worth the name has been forthcoming towards the cause of Primary Education.

The policy of concentration advocated by the Hartog Committee with a view to stopping the present wastage and stagnation in our primary school system and their arguments against indiscriminate multiplication of inefficient schools are worth being taken into consideration. While discussing the

problem of financing Compulsory Mass Education the Hartog Committee remarked as follows:

‘There are extravagances in the present system which would tend to disappear under a system of compulsion. The causes of this extravagance are the ill-devised distribution of schools and the small number of pupils in the higher classes, which imply in many cases the presence of a teacher for a much smaller number of pupils than he would have under a compulsory system. Under compulsion, a teacher who is now employed in teaching a mere handful of pupils in one or more classes will be teaching 35 pupils without any extra recurring expenditure. The introduction of compulsion should be regarded as an economical and effective means of filling up the present poorly attended upper classes of primary schools. The increased enrolment and regular promotion of pupils from class to class will necessarily tend to lower the average cost per pupil. With the increase in average enrolment the total additional number of teachers required will be considerably less than is usually anticipated.’

In view of the prevailing economic depression and other incidental difficulties it may not be possible to enforce compulsion throughout the country all at once; but a ten-year plan on some such lines as the Soviet five-year plan may be formed. All the local bodies must be asked to submit their own schemes for compulsion in their respective jurisdictions and their failure to carry out the same within the specified time-limit should be absolutely indefensible. It should be the duty of a responsible Government to exercise its controlling authority in compelling local action. The State has to frankly recognise its responsibility for framing an adequate policy and creating the organs, state and local, through which a sound policy may progressively be realised. While giving abundant facilities for local action, the State, as a Central guiding and co-ordinating authority, must restrain excessive ambition, stimulate backward sentiment and always uphold creditable standards.

A strengthened State Department of Education would avail little unless accompanied by a reconstructed and strengthened Local Educational Organisation with educational and financial powers and with an adequate professional staff. On condition that they fulfil certain requirements the more populous and wealthy centres may be erected into separate School Districts and allowed to enjoy a measure of local autonomy. But the tenure of such local bodies should be so arranged as to give stability and continuity to its policy.

When the current income of the local board is inadequate for the building and equipments for the needed schools, the board is to be authorised and empowered to issue 'Bonds' on the credit of the district under certain specified conditions.

If the current funds on hand are not sufficient to meet the incidental expenses the local board may be authorised to borrow money on the credit of the district under specified conditions and limitations.

A complete and up-to-date Primary School Census, *i.e.*, a list of all the children of compulsory school age (between 5 and 12) is the primary requisite. Rules and Regulations must be framed for taking Biennial Census of all such children.

In the Punjab, the only province where the Compulsory system has attained some success, the Co-operative Movement has played an important part. Many parents, who are enrolled as members of the different credit societies, bound themselves under penalties to keep their children at school for 4 years or until the completion of the fourth standard.

While fully alive to the utility of adequate inspection and supervision of the primary schools, I think the system of deputing the lowest grade and the least intelligent staff of the inspectorate for this purpose should be discontinued. At present any one above the rank of a sub-Inspector feels his visit to a primary school as derogatory to his dignity. There should be a vertical division of the inspectorate so that some of the best members of the staff may devote their attention to Primary Education.

Whereas intelligent diagnostic tests are necessary to discover the points of weakness in our children, the present evaluative system of examination fails to achieve that end and is consequently harmful in its effects.

The employment of primary school children, upto 12 years of age, must be prohibited by necessary legislations throughout the country. The Royal Commission on Labour in India made the following suggestion in this connection (Vide its Report, page 29):

'We would also call attention to the desirability of bringing the upper age-limit for Compulsory Education at least upto 12 years, the minimum age of factory employment'.

To sum up I should like now to make definite suggestions as follows:

1. A complete and up-to-date School Census (biennial) is necessary.

2. Primary Education should be left to public control

though the State has to exercise a Central guiding and controlling authority.

3. The introduction of compulsion is the only one effective way of stopping wastage and increasing mass literacy.
4. Primary Education is to be free for all children between the ages of 5 and 12. Necessary School requisites have also to be supplied.
5. Statutory provision has to be made throughout the country forbidding the employment of school age children in factories upto 12 years of age.
6. The primary course is to cover a period of 7 years from 5 to 12. The curriculum is to be remodelled and local latitude allowed.
7. A ten-year plan may be formed, local bodies asked to submit their schemes which must be given effect to within the specified time.
8. Financial or administrative reasons should not be allowed to handicap the spread of Universal Mass Education. Funds are to be derived partly from the State and partly from taxation and incidental local sources.
9. The State aid must be based not on the number of teachers but on School enrolment and attendance, thus forming a powerful lever in getting children into school and securing regular attendance.
10. Taxation both direct and indirect has to be faced as under:
 - (a) Head or Capitation tax from every male resident of the district, 21 years of age or more, at a fixed rate varying annually from annas four to one rupee per head.
 - (b) Property tax to be levied on the assessed of the personal and real property in the district.
 - (c) Nominal Cess on articles of import and export to and from the district.
11. Local bodies are to be authorised to borrow money on the credit of the district under certain conditions

and limitations when the current funds on hand are not sufficient to meet incidental expenses.

12. Local bodies are to be authorised and empowered to issue ' Bonds ' under specified conditions when the current income is inadequate for the buildings and equipments for the needed schools.
13. The cost of school buildings is to be shared by the Government, the Local Board and the people in the proportion of 2:2:1.
14. Effective steps should be taken towards the gradual development of the process of womanisation in the primary schools.
15. The teaching corps should not be so ill-trained and underpaid as at present.
16. Clinics should be opened at different places and ailing children given free and careful treatment. Light tiffin is to be given to underfed children.
17. Vertical division of the inspectorate transferring some of the best men of higher rank than the sub-inspectors to the Primary Department is necessary.
18. Circulating libraries and lantern shows will prevent children from lapsing back into illiteracy and help Adult Education.
19. The present defective system of Examination is to be mended.
20. Adult Education should find a prominent place in our schemes of Educational Reconstruction.

Before closing I should quote the following remarks of one of the most distinguished sons of India :

' The temple of learning should be like a pyramid rising majestic on its ample base and not like an obelisk standing high but on a narrow basis.'

Finally, we should remember that substantial advancement in Mass Education can only be brought about if the people are seized with fresh interest and faith in education, if they are thoroughly convinced that education is the most sacred and important of the State's Functions, if they are highly resolved that whatever else the country does the State will at least do what it is now conspicuously failing to do, namely, its plain duty to the children of the soil.

REMEDIAL WORK IN THE TEACHING OF SUBTRACTION

BY

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(By The Courtesy of The Scottish Educational Journal).

The subject of this experiment was a girl, Jean K., of chronological age, seven years four months, mental age, six years and one month—intelligence quotient, eighty-two.

Jean K. had been absent from school very often while a pupil in the Infant Department. Her mother was careless and her home life unsatisfactory and poverty-stricken. She was, however, attentive and willing and her interest increased as she overcame difficulties.

Her backwardness in subtraction seemed allied to ignorance of addition tables. She understood the idea of "taking from," but was handicapped by ignorance of the mechanics of Arithmetic. (This was probably due to her absence at an early stage). She learned very slowly. Her rote memory was weak and her number span was only four digits. It was impossible to discover the method by which she occasionally arrived at the right answer; but it did not seem to be achieved by counting by units.

It was fitting then to begin with the addition tables in which Jean was weak. The combinations $0+0$ to $9+9$ were presented in a sequence of which the following two lines present an example:—

1.	0	1	2	3	4	5	6	7
	1	1	1	1	1	1	1	1
	—	—	—	—	—	—	—	—
	1	2	3	4	5	6	7	8
	—	—	—	—	—	—	—	—

2.	0	1	2	3	4	5	6	7
	2	2	2	2	2	2	2	2
	—	—	—	—	—	—	—	—
	2	3	4	5	6	7	8	9
	—	—	—	—	—	—	—	—

The errors made were noted and corrected and after success had been obtained, tuition in subtraction was given in steps of gradually increasing difficulty.

STEP I.—MINUEND NOT MORE THAN 10.

As the pupil depended largely on visual imagery, an attempt was made to teach her from "number pictures." Lay's picture was used with rabbits instead of discs to give added interest.

The pupil was told to count the number of rabbits shown, *i.e.*, ten. She was then asked to turn up the right hand (bottom) flap and count again, *i.e.*, $10 - 1$; next to turn down the right hand (top) flap and count again, *i.e.*, $10 - 2$; by using this card on which Jean could cover up rabbits to be subtracted it was possible to teach her subtraction of all numbers from 10. The Lay plan is superior to other number pictures because it is constructed on the principle that the field of vision is broader than it is high. For example, a child can see 9 as two 4's and a 1; 7 as 4 and 3. This plan is also valuable in teaching subtraction, because, no matter in what order the child subtracts concrete objects placed before her, on this plan, she is left with objects arranged in a manner which conforms to the number picture taught her.

STEP II.

When Jean could perform Step I, satisfactorily, she was given practice in subtracting numbers like 43 from 95. Two digits were used in both subtrahend and minuend in order to teach her to begin at the unit end; the series employed included all possible combinations of numbers.

STEP III.—MINUEND ABOVE 10.

At this stage, the tables which were required were those in which the minuend is above 10. These were presented by means of the concrete. Since she was more likely to remember what she discovered for herself, she was given the Ruxton material and set to work out the answer by herself. When this was done she was encouraged to learn the facts by rote, until proficient.

As a means of testing, diagnostic cards were used. These cards contain the sums and the answers are written on separate movable flaps which were turned down when the child failed.

For practice at this point, Jean was also given Teacher-Pupil cards and taught to play Solitaire. The cards contained on the one side the question and on the other side the question and the

answer. When proficient she worked through the cards and wrote down the answers. In three days, the tables were known thoroughly, but results showed special difficulty with sums of this type, for example:—

16	17	14
—9	—9	—5
—	—	—
8	7	7
—	—	—

STEP IV.—EQUAL ADDITIONS.

This step consisted in teaching the principle of equal additions. First of all, the child was asked to count 10 single pencils; then she was shown a bundle containing 10 pencils; now in this way, she soon understood that one bundle of 10 pencils was equal to 10 single ones. The principle was then carried into the subtraction sums. In subtraction by equal additions, the child was told to add 10 single ones to the top line (units column) and a *bundle* of 10 to the bottom line (tens column).

For example:—

$$\begin{array}{r}
 4'3 \text{ the 3 becomes 13} \\
 (2)8 \text{ the 2 becomes 3} \\
 \hline
 15 \\
 \hline
 \end{array}$$

When this principle was understood, tables of the following type were worked to ensure knowledge of the process and in order to provide a check on mechanical work:—

9	1	5	4	7	2	6	3	8	0
—8	8	8	8	8	8	8	8	8	9
<hr/>									
9	3	1	7	4	6	3	2	0	8
7	7	7	7	7	7	7	7	8	8
<hr/>									
9	5	1	4	2	6	5	0	8	7
6	6	6	6	6	6	6	7	7	7
<hr/>									

Small sums were now given to ensure practice in mixed tables and, in order to avoid strain, they were devised so that the answer in the tens column was zero.

Sixty operations in subtraction were used, forty-five of which were apparent and fifteen of which did not appear until after the first borrowing had taken place. Special emphasis was placed on difficult combinations. The pupil got experience with differences of various magnitudes as well as experience in borrowing from integers of different magnitudes. The numbers used covered the entire field of borrowing difficulties involved in subtraction. Further practice where some numbers involved borrowing and some did not was given.

For example:—

8046	8106	1000
— 3129	— 402	— 95
<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>

At this stage, Jean succeeded in having eighty per cent correct.

Throughout this experiment, the effect of the various forms of apparatus was noted. It was found that the Lay's Card with the rabbits was the most successful and the most interesting to the pupil. The experiment as a whole, however, was a justification of our faith in carefully graded material, and its results provided some reward for attempted remedial work in subtraction.

THE FEDERAL GOVERNMENT AT WORK THROUGH MOTION PICTURE FILMS

BY

RADHA RAMAN MANNA

Senator Royal S. Copeland tells in the March Number of the "School Life," the official organ of the office of Education, United States Government of the Interior, Washington, how schools may benefit from a plan to make 52 Motion Pictures of the work of the Federal Government.

A plan, according to Senator Copeland, has been proposed to produce 52 one-reel motion picture films, showing the work of the United States Government. These films are to be made available to the schools of the country at a very low fee plus transportation costs.

In thousands of schools the pupils will be able to see the Federal Government at work. The films are to have both sound and silent versions, so, if their schools are equipped with sound projectors, they will hear the spinning wheels of Government. Through the magic of the film, they will be able to watch with their own eyes how laws are drafted, discussed in committees, debated in the House and the Senate and finally signed by the President. They will see the Bureau of Fisheries at work. They will be able to learn through the swift and effective medium of visual education the services of the Bureau of Mines, the Coast and Geodetic Survey, how their national parks and forests are cared for, the Army and Navy, and how stamps are made.

Copeland believes this is an opportune time to acquaint the pupils in its schools and the general public, with the activities of the various Government agencies as most persons hold vague ideas regarding the functions of the Federal Government, its bureaus and establishments. The many activities inaugurated under the "Recovery" programme have intensified public interest in the work of the Government. There is a great desire to understand the scope and methods of operating the Federal services.

Through motion pictures millions will come to understand how the Federal Government functions and will have a clearer insight into what it accomplishes. Tax-payers will better understand how their contributions towards Government are

effectively used for their own welfare. The films will serve a useful purpose in connection with the education work to be carried on in the Civilian Conservation Corps camp.

He has been keenly interested in watching the re-action to the series of educational films produced under the supervision of the Bureau of Mines. These have been made in co-operation with and financed by American industry. The films will be available for distribution through numerous channels.

It is proposed that the new series of 52 films on the work of the Government should be produced by some one of the major motion-picture companies. This company will be asked to do the whole job without any expense to the Government, but with Government advice and counsel. He is of the opinion that this will be best done through the Bureau of Mines motion-picture section, because it has had extensive experience in this field.

The films will be treated in narrative-story style, with entertainment appeal. Their production will cost, it is estimated, about \$ 100,000 or an average of about \$ 1,900 per film. Each subject may be treated in one reel. According to tentative plans the 190,000 non-theatrical, educational and civic institutions and organisations equipped with silent film projectors will be able to obtain these films at a rental of 50 cents each, plus transportation charges.

The Bureau of Mines, which is said to have the largest and most authentic library of educational films in existence to-day, consisting of nearly 3,000 reels, it is hoped, will represent the Government's interest in this project.

Last year 34 tons of motion picture films were supplied. In 1933 this Bureau provided films for 53,865 shows. It is estimated that more than 5,000,000 persons saw the films. The Bureau of Mines sends its films free of charge except for a fee to cover transportation.

Certainly this should be a good news to pupils and parents. The enterprise should do a world of good.

HARMFUL FEARS

BY

MRS. D. W. HINDS

Most psychologists agree that we have only two inherent fears, that all others are learned and that usually they are learned in early childhood. The two instinctive fears are the fear of falling and the fear of loud noises. Whenever courage develops normally, these natural fears are seldom heard from, consciously, though they are ever ready to induce the prompt exercise of sane caution. The numerous other fears which are more or less common to all, tend only to restrict and impede.

Since most harmful fears are learned in childhood, a mother should exercise watchfulness over her child's environment. Thoughts, even, are sometimes quite unfit to be admitted, for the child absorbs so much more than the spoken word. A worried, overanxious mother often unconsciously communicates to her child much that is harmful in her emotions.

Anyone who had a part in the child's world may cause unhealthy fears. The maid who dislikes to enter a dark room is often responsible for the child's first fear of the dark. A person who screams or faints at the least sign of danger often does untold harm, and such behaviour should not be tolerated.

Perhaps the most difficult time for a mother to control her own fears is during that stage of development when her child is particularly adventuresome, wishing always to explore. It is well to remember at such a time that just as a child's inherent fears aid in self-preservation, so his boundless energy, and curiosity help him to develop mentally and physically. Natural tendencies should be guided but never opposed. If the mother's fear for her child's safety causes her to forbid the exercise of these natural tendencies, she will not only retard the child's mental and physical growth, but will teach him useless, harmful fears which may remain with him throughout life. A strong faith in God and His goodness can give a mother courage to control her own anxiety. Without this faith and understanding her fears are likely to get the better of her and to be communicated to her child, retarding his spiritual, physical and mental growth.

When children begin climbing upon everything available, the most practical aid is to teach them to climb properly. This

gives the mother more confidence and teaches the child sane caution rather than fear. As one mother said, "They are going to climb whether I like it or not. I can't always be with them, so I teach them to test all tree limbs before venturing out, and to examine all ladders carefully. They must learn to climb," she continued, "and there is no reason why any bones should be broken, but even if this should happen, I would rather have it happen now than later in life."

—*Home Education.*

THE RIGHTS OF CHILDHOOD

BY

THE SECRETARY, THE INTERNATIONAL MONTESSORI
ASSOCIATION

The International Montessori Association has started a campaign in defence of the "Rights of the Child", which will prove of supreme importance for the future of society.

It may be puzzling as to why we talk about its rights in an epoch when so much is done for childhood; the reason is that we take into practical consideration not that the child is a weak being to be protected, but the builder-up of man: hence, if an adult is strong or weak in character, if he is balanced or otherwise, it is due to the conditions he met with during his psychic growth.

The necessity of our campaign becomes immediately apparent if we consider the contrast that humanity presents to-day: in its influence on the outside world man has changed the face of the earth—has overcome the force of gravity so that he can surpass the birds in flight, speak across the continents, etc.; but as regards itself it has remained at the very backward stage of many centuries ago, so that men grow in such a state of moral weakness that they are easy prey to suggestion, and are apt to use the powerful means they have been able to tap from the very sources of nature for destruction of human life.

There is, therefore, an urgent need that humanity should turn upon itself that yearning for conquest that gave it mastery over nature so as to raise its moral level at the height of its external civilisation. Education can no longer remain in the condition of a secondary interest as regards the great social problems of to-day: it must be given a scientific basis, one which places at its very centre the personality of the child and the laws of its psychic development.

The latter is the factor which has not yet been taken into practical consideration and is probably the cause of humanity remaining at the same low level as formerly. Nature has put certain rules and a time-table for the attainment of all functions. Science knows that the body, for instance, does not grow gradually and regularly, but that there are different epochs for the development of the different parts. Psychically it is the same;

there is a special time and a special mechanism for each function. The mechanism is usually the repetition of the same sort of activity which may last months or years. Everyone knows how difficult it is to make a child stop touching things at a certain epoch, or how boring he becomes at a later age with the continuous questions; but strangely enough no one sees in this the mechanism of nature, but the innate perversity of man. And thus the tragic position of childhood on the one side impelled by nature in one direction, on the other disciplined into submission by an adult who has laid a path in another direction!

How can the child build up those integral personalities of which the world is in crying need to-day, when up to university age he has grown up physically in conditions of absolute dependence and unreasoning submission to the will and mental power of the adult? How can such a one be called upon to aid the formation of the highly developed society that ideally ought to be founded upon the liberty of the individual? One might as well ask the Chinese woman whose feet had been atrophied to take part with any hope of success at a hurdle race!

The first steps of our campaign are to be taken in England where the basis will be laid for a social pedagogical reform based upon the psychic laws of growth. The International Montessori Association hopes to attain this with the help of all those who have an interest in childhood whom it is going to invite for an international collaboration, to prepare the public opinion.

THE LIFE AND TIMES OF HORACE MANN

(By the courtesy of The Journal of The National Education Association, U.S.A.)

In 1837 occurred two events important in American educational annals. First, an act was passed in the Massachusetts legislature creating a state board of education. Second, Horace Mann was elected secretary and began a twelve-year service which laid the foundations of the free public school system in America.

The centennial of these events in 1937 will be marked by a nationwide observance sponsored by the National Education Association. The plan was begun at the Atlanta convention in 1929 when the following resolution was adopted: •

Resolved that the National Education Association approves the plan to hold a centennial Horace Mann celebration in 1937; that it calls the attention of all state and national educational and welfare associations to the importance and value of such a celebration . . . and recommends that state and national associations look ahead to build their programs in 1937 around the theme "The Educational Achievements of a Century."

The 1930 resolutions reaffirmed the plan and also recommended that "in the naming of schools consideration be given the pioneer advocate of the common schools—Horace Mann."

The Association has appointed a special Committee on the Horace Mann Centennial to serve as a clearinghouse for information and plans. Payson Smith, Brookline, Massachusetts, is chairman, and Joy Elmer Morgan, editor of THE JOURNAL, is secretary.

The many-sided career of Horace Mann makes him an appealing figure to all groups in American life. As legislator, author of social reform, as secretary, and as college president, Mann pioneered in a dozen fields which lay and educational groups can emphasize. The various states, especially Massachusetts and Ohio, will give special attention to Mann's great service. American Education Week 1937 will stress his contribution to free schools.

Several groups including the Horace Mann League of the United States and the Educational Press Association have committees at work. Kappa Delta Pi, honor society in education, has announced a Mann Centennial Award for the best study on the history of American education.

The Centennial offers a unique opportunity to students, writers, and publishers. Much of the material about Horace Mann, including his own writings, is now outofprint. The following gives a study outline of his life:

1796—Born May 4, at Franklin Mass.

1819—Graduated with first honors from Brown University, Providence, R. I.

1821—Entered Litchfield, Conn., law school.

1823—Admitted to the Massachusetts bar; opened law office in Dedham.

1827-36—Served in the Massachusetts House of Representatives and the Senate.

1836—Elected president of the Massachusetts Senate from which he resigned in.

1837—To become secretary of the Massachusetts state board of education.

1839—Founded the first normal school in America at Lexington, Mass.

1843—Visited the schools of Europe.

1844—Controversy with the Boston school-masters over the Seventh Annual Report.

1848—Succeeded John Quincy Adams in the United States House of Representatives.

1852—Appointed president of Antioch College Yellow Springs, Ohio.

1859—Died August 2, at Antioch College.

Two factors influenced the progress of education in America in the 1840's: [a] the opening of the West, and [b] the industrial revolution. New ideals of human freedom and justice were beginning to take root. A temperance crusade was in progress; the abolition of slavery was gaining headway. Emerson wrote: "We are all a little wild here . . . Not a reading

man but has a draft of a new community in his waistcoat pocket." In literature this was the American golden age. In this period lived Longfellow; Lowell; Emerson; Whittier; Thoreau; Bryant; Irving; Poe; Holmes; Cooper; the Alcotts, and Nathaniel Hawthorne, who was Horace Mann's brother-in-law.

Horace Mann's salary as state secretary was only \$ 1,500. He had no allowance for clerical help and was obliged to do all his writing in longhand. Neither fountain pens nor typewriters had been invented. Yet he wrote literally thousands of letters in behalf of the schools. His Annual Reports were read thruout the world and have fresh interest for today's readers. He prepared or helped prepare several text-books. He deserves fame also as editor of the *Common School Journal* which, along with his lectures before lay and educational groups, served to stamp upon American schools the principles to which he devoted his life.

Mann issued twelve reports during his secretaryship, the most famous of which were the fifth, portraying the advantages of an education, and the seventh, recording his observations of European schools which led to the famous controversy with the thirty-one Boston schoolmasters.

Horace Mann founded the *The Common School Journal* in 1838 and was its editor until December 1848. It was a semimonthly of 16 pages. The first issue in November 1838 announced the purpose:

"The great object of this work will be the improvement of Common Schools and the means of Popular Education. It is also intended to make it a depository of the Laws of the Commonwealth in relation to Schools, and of the Reports, Proceedings, etc., of the Massachusetts Board of Education."

The lyceum or public lecture was a popular diversion of the people in Mann's day who had few books to read and little leisure to absorb them. Mann made the most of this agency of adult education, and asked others to help him. "He laid under tribute brilliant clergymen, distinguished lawyers, prominent men of letters, and wellknown college professors as speakers at the hundreds of public meetings held thruout the commonwealth. Thru these public meetings he literally stirred the thoughts and feelings of the entire state."

Horace Mann advocated the teaching of such practical studies as arithmetic, drawing, surveying, nature studies, and physiology. He maintained that the school which failed to prepare its pupils for the work of field, shop, and desk fell short of its true goal.

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With Pliny E. Chase, Horace Mann prepared a series of textbooks on arithmetic published in 1850-51. Mann also wrote a text on the Study of Physiology in the Schools, and a Lecture on the Best Mode of Preparing and Using Spelling Books.

Mann's correspondence was more voluminous than all his other writings and sometimes amounted to more than thirty letters a day. Shortly before he became secretary, Mann began to keep a personal journal or diary. The letters and journal are part of the "Mann Papers." They are a rich source of information about his health, methods of work, friends, travels, and ideas. They are quoted extensively in Mrs. Mann's biography. On June 30, 1837, Mann wrote in his journal: "This morning I communicated my acceptance of the Secretaryship . . . Henceforth so long as I hold this office, I devote myself to the supremest welfare of mankind on earth . . . I have faith in the improvability of the race." It was that faith which laid the foundation of the free public-school movement in America.

REVIEWS

An A. B. C. of English Usage. By H. A. Treble and G. H. Vallins. (Re. 1—4. The Clarendon Press, Oxford).

This is a book of great value especially to the foreign students of English. The main elements in the accidence and of the English language, both spoken and written—have been presented in dictionary form with care and discretion. Spelling, punctuation, pronunciation and idiom have all found a place in this “alphabetical companion to English Composition.” “The definitions and rules have been presented in their simplest and most concise terms,” while the system of cross reference has made it interesting and profitable. This is no mere reproduction of existing dictionaries but the work of scholars who know what is needed for the classroom. It is complete and accurate and has taken cognisance of class-room requirements. None but a practised teacher could properly appreciate the labour, time and knowledge that must have gone to the compilation of this most useful volume. It will repay careful reading as it is searching thorough and scholarly. The Clarendon Press is renowned for its excellent printing and moderate price, which should make the volume popular among teachers and students.

Intelligence: Its Nature and Measurement. By R. R. Kumria, M.A., Lecturer in Psychology, Central Training College, Lahore. (Rai Saheb M. Gulab Singh & Sons, Lahore).

Mr. Kumria belongs to the first batch of students which was with Dr. C. H. Rice while he was standardising the Hindustani-Binet-Performance Point Scale in his laboratory of experimental psychology, in 1925, at Lahore. He was first drawn into educational research in 1929 by Prof. G. C. Chatterji, M.A., I.E.S., who suggested that a battery of group intelligence tests in Urdu be constructed for students entering intermediate colleges. Mr. Kumria did frame a scale but has not yet been able to standardise it. He has given the scale, as an appendix, to this brochure on Intelligence Tests, which contains his opinion regarding the concept of intelligence and intelligence tests. The volume is divided into seven chapters, two of which relate to Statistical Devices and Bibliography. In his first chapter the author discourses on the Nature of Intelligence and attempts a definition of general intelligence; and in the 2nd and the 3rd

chapters he points out the effects of New Education and Psycho-Analysis on tied or shackled intelligence. The fifth chapter is devoted to Intelligence Test and the succeeding one to its use. Mr. Kumria believes that, by making use of intelligence test at the time of admission, and working on the lines suggested by The New Education Fellowship, India will be able to produce a new and better type of humanity. Without seeing eye to eye with the author, in every detail, we may safely say that he has contrived to convey a wealth of information in a short compass and that at the same time has illuminated it by his fresh and independent judgment.

An Intelligent Pupil's Guide To Correcting Compositions. By K. S. Acharlu, M.A., B.T., Maharaja's High School, Mysore. To be had of the author.

The aim of this booklet is to enable the students to correct "their compositions which have been marked by the teacher," as far as possible, through self-effort. A number of guide words and symbols has been selected and the teacher is required to use them while correcting pieces of composition. The volume is valuable as a result of the experience and experiment of Mr. Acharlu. The student is to be released from his traditional dependence on the teacher and helped to use his own initiative. It is decidedly a stimulating book.

Bishrampur Lekhan Map. By Rev. E. W. Menzel. (4 annas. Rev. E. W. Menzel, Bishrampur, C. P., Via Bhatapara).

Rev. E. W. Menzel has done a real service to the teachers by constructing a Writing Scale in Hindi based on Ayer's famous writing scale. The directions are printed on the scale in Hindi. The teacher has to compare a specimen of the writing of the pupil with the specimen in the scale. In this way specific grades can be assigned to specimens of handwriting and efforts can be made, to eliminate errors. It is pioneer work and deserves encouragement.

Hindi Shikshan Patrika Vol. III No. 3. Edited by Gijubhai, Tarabahan and Kashi Nath Trivedi. (Annual Subscription Re. 1, Hindi Shikshan Patrika Karyalaya, 67 Chandrabhaga, Juni Indore, C. I.)

The managers of this tiny journal in Hindi have earned the gratitude of children and parents both. There could be no better scheme of educating parents and teachers to treat the children with sympathy, affection and understanding. The articles are all pleas for a free development of child-mind and

are of special value to mothers. The language is homely—even colloquial, the style is plain, while the diction is simple and concise. We wish provincialism could be avoided from the language and that the spelling could be improved. The articles of this journal will cause teachers and parents, who read it, to think out again what they had perhaps taken for granted, or regarded as settled.

EDITORIAL NOTES

The Convocation Address of the University of Bombay.

His Excellency the Governor of Bombay, in his address to the Convocation of the University of the Presidency, laid special emphasis on the physical uplift of the educated classes and the benefits of hostel life. The reports of the medical inspection of students, in colleges affiliated to the University of Bombay, show that out of between 13,000 and 14,000 students examined each year the health and physique of less than 2 p.c. could not be improved at all owing to organic disease, or could be improved only by a surgical operation. "Of the remainder, one half of the total number examined were placed in B class which comprises all students who do not satisfy a certain standard of weight and measurement prescribed on the basis of age but who are capable of improvement by training and diet." This is a very deplorable state of affairs indeed! And we agree with His Excellency that these facts not only "give food for thought but they also give scope for action." His Excellency suggests that the chief remedy for these defects is "residence in a well-run hostel" controlled and supervised by the University. In his opinion, in these hostels, "meals adequate in quantity and properly balanced to supply a full diet can be guaranteed" at moderate cost, while opportunities for physical exercise and recreation would be abundant. We maintain that there are very few hostels in the country which are well run according to the standard visualised by His Excellency, and that those that are well run are so costly as to be beyond the reach of the common run of students. The appalling poverty of the masses and the niggardly policy of the provincial governments, in granting facilities for the establishment and maintenance of "well run hostels," are chiefly responsible for the physical defectiveness of the majority of our student population. Unless the economic condition of the populace improves and unless the provincial governments adopt a more liberal policy of grant-in-aid to the Universities, "the well run hostel" will remain a luxury, meant for the sons of the wealthy few only who could pay for it. A serious, well thought-out and simultaneous effort, on the parts of all provincial governments, to improve the physical condition of the students of schools and colleges, will go a long way towards solving this national problem.

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The Fetish of Examinations.

Intimately connected with the physical deterioration of Indian students is the question of examinations. Examinations are powerful enough to dominate our life and they are the chief determinant of all our actions. Curiously enough the system of examination which occupies such an important niche in our social structure at present was unknown in ancient India. It is an exotic planted in our soil and nurtured with the help of Western educationists. It was readily adopted by the early Indian educationists who considered the imitation of the west to be the chief panacea for all the ills of their nation. They never thought that its utility would ever be questioned. The result is that the system has taken such strong root in this country that nothing short of a revolution would ever uproot it. It is a hopeless task to abolish examinations in India. Our belief in them is pathetic and has become a superstition. But what is worse about them is that they are absolutely detached from class-room conditions and consequently lead to a big educational waste. There is no co-ordination between teaching and examination. The teachers of a certain standard are often considered to be incompetent to set papers or to act as Head Examiners for a public examination of that standard. The consequence is that external examiners, who know nothing about class-room conditions and who live in a world of their own, establish an imaginary and fictitious standard which is altogether outside and beyond the ken of the teacher. This debases and demoralises the teacher. He also adopts this very fictitious standard at his internal examinations. And, as examinations can never reform teaching, as an examiner he becomes something different from what he is as a teacher. This teacher carries a dual personality with him. The one makes him teach his students all kinds of subterfuges, tricks and short cuts to hoodwink the external examiners to secure the minimum pass marks at the external examination, instead of doing his duty by them as a conscientious educator; while the other makes him play the role of the external examiner at the home examinations examining students in what they do not know and in what he himself has never taught them. It is unfashionable for an examiner to take into consideration the actual stage at which a student happens to be, as that would brand him as soft and lenient. It is this detachment from actualities that is responsible for the large number of failures at our public examinations especially the Matriculation, and for the rowdy scenes enacted the other day at Bombay. Every examining

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board deploras the low standard of attainment of its examinees every year without making the slightest effort to get in touch with the class-room conditions of students. If we cannot provide our students efficient schools, competent teachers and healthy environments we have no business to assess their attainments with an artificially created high standard.

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New Education in India.

The present education in this country is largely traditional and is fettered by rules and regulations framed either by the government or by the syndicates of universities. There is no freedom neither for the children nor for the teacher. We have to work in narrow grooves and subject to political and economic limitations. In the administration of education the expert opinion is considered to be idealistic and the lay opinion is respected and followed. In the administration of secondary education the experts are the dumb driven cattle, who have not only to look with awe and wonder at the views of officers and advisers who know very little about the technique or the spirit of education, but also to put those views into practice. When the teachers are, themselves, chained and are suffering from inferiority complex it is useless to expect them to unchain childhood. Hence the New Education in India remains only lip-talk and a catchword which is often utilised by high officials and less sober politicians to bring into relief the lethargy and the incompetence of the teaching profession in the country. To popularise new education its advocates should first prevail upon educational administrators, inspectors and directors to read about it and to unchain the teachers, granting them facilities to study it and to practise it. It is refreshing to turn from the actual conditions in India to the provocative address of Mr. Ernest Raymond at the annual dinner of a teachers' association in England. "The goals at which Education ought to aim are full and glorious living and the upward march of mankind. It is my first conviction that these goals will not be reached until we set free the child slaves. A school's final object should be to produce a very perfect gentleman. But you cannot produce a bloom until you have a good root. You cannot graft gentility on to untamed ignorance because where you have untamed ignorance you will have intolerance." But Mr. Raymond cannot remain content with "setting free the child slaves." He declares that the main business of education is producing rebels—"fine, free, independent, highly critical, healthy, rebellious minds—people who will indignantly rebel

against all that is stupid and cruel in our society." To him the slogan "we should fit the child for society" is only one-third of the truth; "the other two-thirds is fitting society for the child." How we wish our social reformers and educational administrators could ponder over some of these home-thrusts and unpleasant truths of our educational life!

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Dr. V. S. Ram and the League of Nations.

Dr. V. S. Ram, the professor of Politics, at the Lucknow University, has been offered and has accepted a post on the staff of the League of Nations office, Geneva. Dr. Ram is an authority on Political Science and has several times been given a place on the Herman Jordon Committees of The World Federation of Educational Associations on behalf of the All India Federation. We congratulate Dr. Ram on his appointment and wish him success in this new sphere of his activities. Never was the prestige of the League of Nations lower than it is to-day. In India there are very few who believe in the League of Nations as a machinery for ensuring peace. The recent wars have demonstrated, in no uncertain manner, the helplessness of the League of Nations. But we have to recognise that to abolish it would be a counsel of despair. The League has to go on and to amend its constitution after exploring the causes of its failure. Dr. V. S. Ram has expressed his intention of arranging for more propaganda in India to popularise the idea of the League. We wish all strength to his elbow.

Obituary.

We regret to announce the death of two eminent educationists of the country, Mr. Gurubandhu Bhattacharya, Principal, Secondary Training College, Baroda, and Mr. Batuk Nath Jha, Professor, Training College, Allahabad. Mr. Bhattacharya had considerable educational research to his credit at the Training College, Dacca, and all his energies had been recently devoted to perfecting the newly started Training College at Baroda. He was a prolific writer and a sound thinker and we could ill afford to lose him at this juncture. Professor Jha was a quiet and unostentatious worker who worked a good deal to start the New Education Fellowship branch at Lucknow. At a time when we needed him most we have been deprived of the benefit of his rich experience and ripe wisdom.

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- (1) To act as an information Centre for all matters relating to Indian Education.
- (2) To encourage scientific investigation in educational sphere and to stimulate statistical enquiries or those relating to experimental projects.
- (3) To consolidate a public of those who, finding it impossible to be indifferent about the educational drift of India, believe that a concern for the health of educational criticism is immediately relevant to the political and economic urgencies of the time.
- (4) To provide a mouthpiece for Indian educational thinkers and researchers.
- (5) To strive for World Peace through Education.

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